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Mississippi State Board of Health reports

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Report of the Mississippi State Board of Health, <years 1878--'79>

Biennial report of the Mississippi State Board of Health, 1880-1881-1890-'91

Report of the old Mississippi State Board of Health, January 1st, 1892, up to November 1st 1892, the date it ceased to exist

Report of the new Mississippi State Board of Health, November 15, 1892, the date of its organization, to September 30, 1893

Report of the Mississippi State Board of Health, September 30, 1893 to September 30, 1894, and from September 30, 1894 to January 1, 1896

State Board of Health.

BIENNIAL REPORT

OF THE

MISSISSIPPI

STATE BOARD OF HEALTH,

1880-1881.

JACKSON, MISS.:

J. L. POWER STATE PRINTER.

1881.

MEMBERS OF THE BOARD.

President.

S. V. D. HILL, M. D MACON.

Secretary.

WIRT JOHNSTON, M. D JACKSON.

For the State at Large.

F. W. DANCY, M D Holly Springs.

D. L PHARES, M. D Woodville.

WIRT JOHNSTON, M. D Jackson.

First District—

J. M. Taylor, M. D. Corinth.

E. P. Sale, M.D. Aberdeen.

Second District—

W. F. Hyer, M. D. Hudsonville.

John Wright, M. D Sardis.

Third District—

S. V. D Hill, M. D. Macon.

B. F. Kittrell, M. D. Black Hawk.

Fourth District—

P. J. McCormick, M. D. Yazoo City

Geo. E. Redwood, M. D Meridian

Fifth District—

Robert Kells, M D Jackson.

J. W. Bennett, M. D. Brookhaven.

Sixth District—

R. G. Wharton, M. D. Port Gibson.

C. A. Rice, M. D Vicksburg.

EXECUTIVE COMMITTEE.

C. A. Rice, M. D., Robert Kells, M. D., Wirt Johnston, M. D.

COMMITTEE ON LEGISLATION.

J. M. Taylor, M. D.,
D. L. Phares, M. D.,
John Wright M. D.,

E. P. Sale, M. D.,
Robert Kells, M. D.,
Wirt Johnston, M. D.

COMMITTEE ON PUBLICATION, STATIONERY AND PRINTING.

Robert Kells, M. D., C. A. Rice, M. D., Wirt Johnston, M. D.

CHIEF HEALTH OFFICERS OF COUNTIES.

Adams.....	Dr. T. S. Sharpe.....	Natchez.
Alcorn.....	Dr. W. B. Sanford.....	Corinth.
Amite	Dr. C. H. Bates.	
Attala.....	Dr. J. M. Lewis.....	Kosciusko.
Benton....	Dr. T. L. Jackson.....	Michigan City.
Bolivar.....	Dr. J. W. Dulaney	Rosedale.
Calhoun.....	Dr. W. L. Dottery.....	Bentley.
Carroll.....	Dr. G. W. Vassar.....	Carrollton.
Chickasaw.....	Dr. J. S. Cain.....	Okolona.
Claiborne.....	Dr. W. D. Redus.....	Port Gibson.
Clarke.....	Dr. A. V. Wolverton.....	Enterprise.
Coahoma.....	Dr. J. A. Cooper.....	Friar's Point.
Copiah.....	Dr. G. W. Purnell.....	Hazlehurst.
Covington.....	Dr. Alex. Fairley.....	Mt. Olive.
Clay.....	Dr. J. E. McEachern.....	West Point.
DeSoto.....	Dr. J. H. P. Westbrook.....	Hernando.
Greene.....	Dr. B. F. Hamrick.....	State Line.
Grenada.....	Dr. G. W. Trimble.....	Grenada.
Holmes.....	Dr. G. C. Phillips.....	Lexington.
Jefferson.....	Dr. N. L. Guice.....	Fayette.
Jones.....	Dr. John M. Baylis.....	Ellisville.
Kemper....	Dr. L. M. McLendon.	
Lafayette.....	Dr. J. T. Chandler.....	Oxford.
Lauderdale.....	Dr. A. H. Smith.....	Meridian.
Lawrence.....	Dr. James A. Rowan.....	Silver Creek.
Leake.....	Dr. W. R. Blailock.....	Carthage.
Lee.....	Dr. R. C. Cunningham	Verona.
Lincoln....	Dr. E. J. Bowen.....	Brookhaven.
Lowndes....	Dr. B. A. Vaughan.....	Columbus.
Lefflore.....	Dr. M. G. Davis.....	Greenwood.

Madison.....	Dr. A. T. Semmes.....	Canton.
Marshall.....	Dr. A. M. West.....	Holly Springs.
Monroe.....	Dr. J. M. Greene.....	Aberdeen.
Montgomery.....	Dr. B. F. Ward.....	Winona.
Neshoba.....	Dr. T. J. Lee.....	Philadelphia.
Newton.....	Dr. C. P. Partin.....	Decatur.
Noxubee.....	Dr. H. A. Minor.....	Macon.
Oktibbeha.....	Dr. W. N. Ames.....	Starkville.
Panola.....	Dr. A. I. Ellis.....	Sardis.
Pike.....	Dr. D. U. Ford.....	McComb City.
Prentiss.....	Dr. W. A. Taylor.....	Booneville.
Rankin.....	Dr. P. Fairley.....	Brandon.
Scott.....	Dr. J. L. Gresham.....	Forest.
Sharkey.....	Dr. J. C. Hall.....	McKinneyville.
Simpson.....	Dr. Wm. Giles.....	Westville.
Smith.....	Dr. A. G. McLaurin.....	Raleigh.
Sumner.....	Dr. A. H. Bays.....	Walthall.
Sunflower.....	Dr. W. H. Baird.....	Indian Bayou.
Tallahatchie.....	Dr. James Calhoun.....	Garner's Station.
Tippah.....	Dr. W. D. Carter.....	Ripley.
Tishomingo.....	Dr. Carroll Kendrick.....	Corinth.
Tunica.....	Dr. J. M. Phillips.....	Austin.
Warren.....	Dr. W. T. Balfour.....	Vicksburg.
Washington.....	Dr. R. S. Toombs.....	Greenville.
Wilkinson.....	Dr. L. W. Magruder.....	Woodville.
Yalobusha.....	Dr. H. A. Gant.....	Water Valley.
Yazoo.....	Dr. R. L. Dunn.....	Yazoo City.

REPORT OF PRESIDENT.

To His Excellency, Gov. J. M. Stone :

It has been a standing rule of the State Board of Health, since its organization, for the President to accompany each biennial report with a synoptical statement of the acts and views of the Board, including such other remarks as he may deem pertinent and proper.

It is gratifying to be able to announce that during the two years which have elapsed since our last report no formidable general epidemic has invaded the borders of our State, or originated within it; no very destructive local outbreak of disease has occurred, and, as a rule, the health of the people has been exceptionally good. From several places there have been reported cases of measles, whooping cough, diphtheria, a few of meningitis (cerebro-spinal) more of dengue, and two of small-pox; but none of these have been very extensive, or unusually fatal. Malarial diseases have sensibly diminished in number and gravity for several years past—possibly owing to favoring seasons—except in a few localities peculiarly obnoxious to them. And I will state, parenthetically, that the recognition and removal of the cause of malarial diseases in our State is a sanitary question of transcendent importance—overshadowing all others, except, perhaps, the prevention of yellow fever. To grapple with this cause successfully will be a herculean task, necessitating an immense amount of drainage, the destruction of timber, the removal of human habitations to healthier places, and many other things less difficult, but equally important. Yet it is a task that should be undertaken by the State authorities at the earliest possible period, in a systematic way, in all those portions of our domain where it is at all practicable. Malaria is the great outlet to life among our people—a gigantic morbid enemy to human existence and constitutional vigor, as well as to the material prosperity of the State.

The State Board of Health—chiefly through its efficient Secretary and Executive Committee—has endeavored to be diligent and prompt in ferretting out the causes of disease and removing them as far as possible; in giving information as to the proper management of cases of contagious and infectious diseases in

order to prevent their spreading; in guarding against any threatened epidemic from abroad, and in furnishing advice and instruction, from time to time, as to general sanitation, and the duties of officials under existing health laws. In fact it has been the earnest purpose of the Board, as indicated in its proceedings and expressed by the words and acts of its individual members, to faithfully and efficiently obey the mandates of the law under which it exists, and by which it is controlled. Two years under the "Amended Statutes in regard to Boards of Health" have exemplified their wisdom and adaptability to the aims and purposes of State medicine, in so far as they could be tested without the presence of a wide-spread epidemic, such as we have had in the past.

At the first meeting of the Board, under the new law, a Chief Health Officer for each county, in which one was deemed necessary, was nominated. And in each case the officer was selected after careful investigation, and with due regard for his sanitary attainments, professional worth, and moral standing.

Although a few of these County Health Officers, for some cause or other, have been careless and indifferent respecting their official responsibilities, most of them have diligently and faithfully discharged their duties as conservators of the public health in their respective localities; have forwarded regularly to the Secretary interesting and valuable reports, and co-operated with the Board in accomplishing the ends of health organizations. More time is necessary for this feature of the law to be thoroughly understood and properly appreciated by both officers and people.

It is a gratification to be able to state that no necessity has arisen for the use of but a small part of the liberal appropriation made under sections 18 and 21 of the law. The amount employed was \$625 in 1880, and \$700 in 1881, for the benefit of the Jackson County Board of Health, to assist it in sustaining a quarantine station at the important port of Pascagoula.

In only one instance, during the two years, have legal proceedings been instituted, under section 9, for the abatement of a nuisance. It was in the case of a slaughter-house in Vicksburg, which the County Health Officer declared to be dangerous to health, and ordered its removal. The owner refusing to do so, the matter was referred to the State Board, which ordered legal process issued, and the case carried before the Circuit Judge, who promptly decided that the pen should be removed.

At a called meeting of the Board, held on the 8th of November last, I was requested to call attention in this address to one or two subjects demanding additional legislation. It was thought best that the sea-coast counties of Harrison and Hancock should be placed on the same footing with Jackson county, as regards quarantine protection from epidemic diseases, and be subject to the control of the State Board of Health under existing statutes. These two counties represent a great part of the sea-coast in Mississippi, and they have a large and increasing com-

merce with the West Indies, Mexico and Central America, countries well-known to be almost constantly infected with yellow-fever.

At present the only quarantine restriction along the coast of these counties is that furnished by local boards of health acting independently. These local boards, I have great reason to believe, have done their duty faithfully; but there is necessarily wanting among them that concert of action and reach of authority indispensable to the complete protection of this dangerous portion of our borders. The National Board of Health quarantine station, at Ship Island, has afforded comparative safety to this coast, except its western extremity. Here lumber vessels from Havana and Vera Cruz go around Cat Island and ascend Pearl River as far as Pearlinton, without the least interference from health officers. Several letters have been received by the Secretary from intelligent and reliable physicians living on this coast describing its exposed condition, and the danger to which it subjects the people there, and those of the whole State.

In the next place, it was deemed important by the Board, that it should be made by law a part of the duties of the Professors of Chemistry at the University of Mississippi and A. and M. College, to analyze water, food, soils, &c., on the application of the Executive Committee of the State Board of Health; and that their salaries be increased proportionally, or authority be given for compensating them properly as the service is performed.

It is a well known fact that food and drinking water are fruitful sources of disease, and often the media by which irritant poisons are introduced into the human system.

Dr. E. P. Sale, of this Board, reported an instance of a severe and almost fatal disease occurring among a large number of the guests of a hotel in Aberdeen last summer, the cause of which was traced to impure beef, but not identified for want of proper facilities for careful analysis. Such occurrences are by no means uncommon, and it is important that the services of accomplished experts should be secured to aid the health authorities in tracing the causes of disease in those substances that can be subjected to analysis.

Kerosene oil has become alarmingly destructive to human life of late years, and has claimed many victims in our own State, on account of its impurity and careless handling. A prominent minister in Okolona, and an excellent lady of West Point, both lost their lives this year, by the explosion of kerosene lamps. It would be a decided protection to our people, and doubtless save many lives, if an Inspector of Oils was appointed for the State, a prominent part of whose duties it should be to see that no illuminating oil was admitted within our borders that did not stand the requisite fire test, or was in any respect unsafe for use. Several States have such an inspector, and the result has been highly favorable, as shown by comparative statistics.

Another matter bearing directly upon health and the welfare of our people is the enactment of a law to shield society against the ignorance and rapacity of irregular practitioner's of medicine, mountebanks and quacks. It is the expressed sense of the State Medical Association, of many local medical societies, and the sentiment of a large majority of the intelligent citizens of the State, that such a law is a real necessity.

From 1820 to 1833 there existed a law in this State for the protection of the people against quackery, which gave general satisfaction, and accomplished a vast amount of good; but, unfortunately, the members of the Board of Censors—for which it provided—were appointed to hold office indefinitely, which was not authorized by the Constitution, and the law became a nullity, by a decision of the Supreme Court. This, or a similar law, should be re-enacted, as a part of the sanitary reforms that are now being made by the Legislature of the State.

Most of those States immediately around us have laws in force against pretenders and impostors in medicine; hence this class of gentry seek Mississippi in large numbers, as a safe place of refuge where they can ply their tricks of trade unmolested by officials. We should see that our soil is not quite overrun by them, and our people fleeced of their hard earnings, in addition to having their lives lost, or constitutions impaired through ignorance or design.

Much has yet to be done in the way of educating the people up to an intelligent appreciation of the importance of general and personal hygiene. The preservation of human health is a matter of the highest consideration, and when the people of Mississippi learn to apply the principles of advanced sanitation to their every-day lives, it will be surprising to find what good results to the mental, physical, and material interests of the State will follow. Since the organization of the State Board of Health, at a time when the blighting, withering influence of yellow fever was abroad in the land, the attention of this body, that of the legal authorities of the State, and of the people at large, has been directed to the prevention of a recurrence of this much dreaded disease. But as time advances and we get further from the ravages of this fever, greater efforts will be made to improve the hygiene of towns, of houses, and of individuals.

As soon as the machinery of the present law is in a permanently working condition, and the fear of yellow fever diminishes, it is the purpose of the Board to pay more regard to instructing the people in those measures calculated to prevent the more common diseases of the country and prolong life.

I cannot close this address without adding my testimony to that of many others, as to the ability, efficiency, and enthusiastic devotion to duty of the Secretary of this Board.

Very respectfully,

S. V. D. HILL,
President State Board of Health.

STATE BOARD OF HEALTH.

MINUTES.

JACKSON, Miss., December 17th, 1879.

At a called meeting of the Board held this day, there were present: The President, Dr. C. A. Rice, Drs. Dancy, Redwood, Sale, Kittrell, Kells, Hill and Johnston.

The object of the meeting was stated by the President to be to draft an amendment to the existing Health Laws of the State.

The Board then proceeded to consider the Law of 1878, section by section, and to discuss the necessary changes.

The evening session of this day was also devoted to the discussion of the necessary amendments.

SECOND DAY.

DECEMBER 18th, 1879.

The Board was called to order at 9 o'clock, A. M. Present : The President, Dr. Rice, Drs. Dancy, Redwood, Sale, Kittrell, Kells, Hill and Johnston.

The business of the preceding day was resumed, and at the evening session the amendments to the law were agreed upon, and the Secretary was directed to communicate the views of the Board to Dr. J. M. Taylor, Chairman of the Committee on Legislation.

On motion of Dr. Dancy, Dr. Johnston was added to the Committee on Legislation.

The Secretary certified to the following account—expenses of members incurred in attending the meeting, which were also countersigned by the President : Dr. B. F. Kittrell, \$20 00; Dr. C. A. Rice, \$12 50; Dr. F. W. Dancy, \$22 75; Dr. S. V. D. Hill, \$28 50; Dr. George E. Redwood, \$14 00; Dr. E. P. Sale, \$34 75.

There being no further business, on motion, the Board adjourned.

JACKSON, MISS., April 2d, 1880.

At a meeting of the State Board of Health, beginning this day, there were present: Dr. C. A. Rice, President; Drs. Dancy, Phares, Bennett, Kittrell, Taylor, McCormick, Redwood, Wharton, Kells, Isom, Hill, Wright and Johnston,

On motion of Dr. Hill, the Board proceeded to make nominations for Chief Health Officers for the counties.

The following, offered by Dr. Johnston, was adopted:

Resolved, That the nominations for Chief Health Officers for the various counties, in counties where there are more than one applicant, shall be made by ballot, and the applicant receiving a plurality of the votes cast shall be declared the nominee.

On motion of Dr. Hill, the roll of counties was called, alphabetically, with the following result:

Adams.....	Dr. T. S. Sharpe.....	Natchez.
Alcorn.....	Dr. W. B. Sanford.....	Corinth.
Amite	Nomination deferred.	
Attala.....	Dr. J. M. Lewis.....	Kosciusko.
Benton.....	Dr. T. L. Jackson.....	Michigan City.
Bolivar	Dr. J. W. Dulaney	Rosedale.
Calhoun.....	Nomination deferred.	
Carroll.....	Dr. G. W. Vassar.....	Carrollton.
Chickasaw.....	Dr. J. S. Cain.....	Okolona.
Choctaw.....	Dr. J. W. George.....	Chester.
Claiborne.....	Dr. W. D. Redus.....	Port Gibson.
Clarke.....	Dr. A. V. Wolverton.....	Enterprise.
Coahoma.....	Nomination deferred.	
Copiah.....	Dr. G. W. Purnell.....	Hazlehurst.
Covington.....	Nomination deferred.	
Clay.....	Dr. J. E. McEachern.....	West Point.
DeSoto.	Dr. J. P. H. Westbrook.....	Hernando.
Franklin.....	Nomination deferred.	
Greene.....	Nomination deferred.	
Grenada.....	Dr. G. W. Trimble.....	Grenada.
Hancock... ..	Nomination deferred.	
Harrison.....	Nomination deferred.	
Hinds	Dr. G. K. Harrington.....	Jackson.
Holmes.....	Dr. George C. Phillips.....	Lexington.
Issaquena.....	Dr. R. D. Farish.....	Mayersville.
Itawamba... ..	Nomination deferred.	

On motion, the Board adjourned until 3 o'clock, P. M.

FIRST DAY—AFTERNOON SESSION.

The Board met at 3 o'clock, P. M. The President in the Chair.

The nomination of Chief Health Officers for the counties was resumed with the following result:

Jasper.....	Nomination deferred.	
Jefferson.....	Dr. N. L. Guice.....	Fayette.
Jones.....	Nomination deferred.	
Kemper.....	Dr. L. M. McLendon.....	Sucarnochee.
Lafayette.....	Dr. J. T. Chandler.....	Oxford.
Lauderdale.....	Dr. A. H. Smith.....	Meridian.
Lawrence.....	Nomination deferred.	
Leake.....	Dr. W. R. Blailock.....	Carthage.
Lee.....	Dr. R. C. Cunningham.....	Verona.
Lincoln.....	Dr. E. J. Bowen.....	Brookhaven.
Lowndes.....	Dr. B. A. Vaughan.....	Columbus.
Leflore.....	Dr. M. G. Davis.....	Greenwood.
Madison.....	Dr. A. T. Semmes.....	Canton.
Marion.....	Nomination deferred.	
Marshall.....	Dr. A. M. West.....	Holly Springs.
Monroe.....	Dr. J. M. Greene.....	Aberdeen.
Montgomery.....	Dr. B. F. Ward.....	Winona.
Neshoba.....	Nomination deferred.	
Newton.....	Nomination deferred.	
Noxubee.....	Dr. H. A. Minor.....	Macon.
Oktibbeha.....	Dr. W. N. Ames.....	Starkville.
Panola.....	Dr. A. I. Ellis.....	Sardis.
Perry.....	Nomination deferred.	
Pike.....	Nomination deferred.	
Pontotoc.....	Dr. M. R. Fontaine.....	Pontotoc.
Prentiss.....	Dr. W. A. Taylor.....	Booneville.
Quitman.....	Nomination deferred.	
Rankin.....	Dr. H. C. McLaurin.....	Brandon.
Scott.....	Nomination deferred.	
Sharkey.....	Dr. J. C. Hall.....	McKinneyville.
Simpson.....	Nomination deferred.	
Smith.....	Nomination deferred.	
Sumner.....	Dr. A. H. Bays.....	Walthall.
Sunflower.....	Dr. W. H. Baird.....	Indian Bayou.
Tallahatchie.....	Dr. A. A. Wheat.....	Harrison Station.
Tippah.....	Dr. W. D. Carter.....	Ripley.
Tishomingo.....	Dr. Carroll Kendrick.....	Corinth.
Tunica.....	Dr. J. M. Phillips.....	Austin.
Tate.....	Dr. J. R. Slaton.....	Senatobia.
Union.....	Nomination deferred.	
Warren.....	Dr. W. T. Balfour.....	Vicksburg.
Washington.....	Dr. R. S. Toombs.....	Greenville.
Wayne.....	Nomination deferred.	
Wilkinson.....	Dr. L. W. Magruder.....	Woodville.
Winston.....	Nomination deferred.	
Yalobusha.....	Dr. H. A. Gant.....	Water Valley.
Yazoo.....	Dr. R. L. Dunn.....	Yazoo City.

On motion, the Board adjourned until 9 o'clock A. M. tomorrow.

SECOND DAY.—MORNING SESSION.

APRIL 3D, 1880.

The Board met at 10 o'clock A. M. In the absence of the President, on motion of Dr. Kells, Dr. McCormick was called to the chair. There were present: Drs. Dancy, Bennett, Isom, Kells, Wharton, Kittrell, Wright, Taylor, McCormick, Hill, Phares, and Johnston.

The minutes of the preceding day were read and approved.

The President, Dr. Rice, made his appearance and took the chair.

The following nominations were made for a County Board of Health for Jackson county: Dr. E. F. Griffin, H. L. Howze, H. Krebs, Dr. J. K. McLeod and M. M. Evans.

On motion of Dr. Taylor, the further nominations for County Health Officers was deferred until some future time.

On motion of Dr. Hill, the Board proceeded to consider "an Act to amend the Statutes in regard to Boards of Health," by sections, so as to get an idea of the business arising under it.

On motion, the following Committee was appointed to draft Sanitary Rules to be enforced throughout the State: Drs. Taylor, Hill, Kittrell, Dancy, Isom and Johnston. On motion, the President, Dr. Rice, was added to the Committee.

On motion of Dr. Kells, the Committee appointed was instructed to also prepare Quarantine Rules and Regulations.

On motion of Dr. Hill, the Board agreed to go into the election of a President and Executive Committee at 3 o'clock P. M.

On motion of Dr. Johnston, Drs. Kittrell and Wright were appointed a Committee to prepare an address to the authorities of incorporated towns urging the importance of keeping a record of marriages, births and deaths.

On motion of Dr. Kittrell, the Secretary was instructed to submit the question to the Attorney-General as to whether there is any provision to defray the expenses of enforcing General Sanitary Rules in the counties.

On motion of Dr. Redwood, the Board adjourned until 3 o'clock P. M.

SECOND DAY.—AFTERNOON SESSION.

The Board was called to order at 3 o'clock P. M. The President in the chair.

The hour having arrived for the election of a President and Executive Committee for the ensuing year, the Board proceeded to ballot for a President, which resulted in the election of Dr. S. V. D. Hill.

Dr. Hill thanked the Board for the honor conferred.

Dr. Rice, the retiring President, thanked the Board for the honor conferred on him in electing him a year ago, and for the courtesy with which he had been treated.

On motion of Dr. Taylor, the thanks of the Board were tendered the retiring President, Dr. Rice, for the able and courteous manner with which his duties had been discharged.

The Board then elected the following Executive Committee for the ensuing year: Drs. Kells, Rice and Johnston. Dr. Johnston was designated as Chairman of the Committee.

The following Committee on Publication, Stationery and Printing was chosen for the ensuing year: Drs. Kells, Rice and Johnston.

The following Committee on Legislation was chosen: Drs. Hill, Kells and Johnston. On motion Dr. Taylor was added to the Committee.

On motion, Dr. Kittrell was appointed a Committee to draft a Memorial to the Mississippi Senators and Representatives in Congress asking their aid in securing the legislation asked for by the National Board of Health.

On motion, the Board adjourned until Monday morning at 9 o'clock.

THIRD DAY.—MORNING SESSION.

APRIL 5th, 1881.

The Board met at 9:30 o'clock. The President in the chair. Present: Drs. Hill, Dancy, Phares, Rice, Taylor, Isom, Sale, Bennett, Wright, Kells and Johnston.

The minutes of Saturday's session were read and approved.

Dr. Taylor, who was a delegate from this Board to the Sanitary Council of the Mississippi Valley, which was organized at Memphis on April 30th, 1879, made a verbal report, which was received and adopted.

Dr. Kittrell, Chairman of the Committee to draft a Memorial to the Mississippi Senators and Representatives in Congress asking their aid in securing the legislation asked for by the National Board of Health, reported as follows:

To the Honorable Senators and Representatives of Mississippi in the Congress of the United States :

GENTLEMEN : The undersigned members of the Mississippi State Board of Health present at the annual session of the Board now being held in the city of Jackson, deem it their duty to inform you that the National Board of Health has promptly extended us, during the past year, all the aid needed by us to protect our State against another epidemic of yellow fever. We desire to express, in the most emphatic manner, our opinion that the affairs of the National Board of Health have been

administered with great prudence and ability. We believe that it would be unreasonable, in the present condition of sanitary science, to expect that or any similar organization to accomplish in a day results that can be reached only by a long series of years, in which ripe experience founded on patient and laborious investigation shall fully determine the practical details of sanitary work. We, therefore, view with a feeling of great concern the indications of a prejudiced hostility to the National Board of Health which have been manifested in certain quarters; and we would most respectfully urge you, in view of the recent sanitary legislation of our own State Legislature, to support the National Board of Health in its laudable efforts to carry out the great work imposed upon it. We would remind you that our Legislature, at its recent session, amended our Health Laws so as to confer on the State Board of Health absolute power in matters of quarantine, and made a liberal appropriation to enable us to enforce these Statutes. We do not hesitate to say, in view of the great responsibility resting upon us, that we cannot efficiently discharge our duty without the aid and co operation of the National Board of Health, and that any action on the part of Congress tending to restrict the power or to withhold the means needed to carry out the recommendations made, in connection with the National Academy of Sciences, by the National Board of Health in its annual report, would be regarded by us as a direct blow at the most vital interests of our beloved State.

Praying your earnest consideration of this important subject, we beg leave to remain, with sentiments of the highest regards.

The Memorial was received and adopted.

The committee appointed to draft Sanitary Rules reported through Dr. Johnston, and after making certain amendments the Rules were adopted.

On motion, the Board adjourned until 4 o'clock P. M.

THIRD DAY—AFTERNOON SESSION.

The Board was called to order by the President at 4 o'clock.

Dr. Kittrell, Chairman of the Committee to prepare an address to the authorities of incorporated towns urging the importance of keeping a record of vital statistics, reported as follows:

To the Municipal Authorities of Incorporated Cities and Towns in the State of Mississippi:

The State Board of Health consider it their duty to direct your attention especially to Sections 5 and 11 of the Act to amend the Statutes in regard to Boards of Health, approved March 4th, 1880. You will perceive that Sec. 5 makes it the duty of the State Board of Health to "collect and preserve

such information relating to deaths, diseases and health as may be useful in the discharge of its duties, and contribute to the promotion of health or the security of life in the State of Mississippi." Section 11 invests incorporated towns "with full powers of enforcing ordinances for registration and mortuary statistics." We deem it unnecessary, in addressing citizens of your intelligence, to prove the necessity that exists for furnishing these statistics to our Board. We would suggest the requiring of burial permits, in all cases of death within the corporate limits of cities and towns, as essential to the correct registration of mortuary statistics. As the statistics will enable us to discharge more efficiently the duties imposed on us by Section 5, we earnestly request you to pass the ordinances indicated in Sec. 11, and confidently rely on your appreciation of their importance to have them strictly enforced.

The report was received and adopted.

On motion, the Board adjourned until 9 o'clock A. M., tomorrow.

FOURTH DAY—MORNING SESSION.

JACKSON, MISS., October 6, 1880.

The Board was called to order at 10 o'clock.

Present: Dr. Hill, President; Drs. Kittrell, Bennett, Sale, Kells, Phares, Taylor, Rice and Johnston.

The minutes of the preceding day were read and approved.

On motion of Dr. Bennett, the Board proceeded to the consideration of matters relating to quarantine.

Dr. Sale moved that the period of detention be fixed at fifteen days.

Dr. Taylor moved to amend by inserting seven days.

The amendment was lost, and the motion of Dr. Sale prevailed.

On motion, the President appointed Drs. Taylor and Isom a committee to correspond with the Professor of Chemistry of the State University, with a view of securing his services in connection with this Board.

The following, offered by Dr. Kittrell, was adopted:

Resolved, That no Health Officer under the jurisdiction of this Board will be permitted to make any charge for the issuance of certificates, or the performance of any other official act.

The following, also offered by Dr. Kittrell, was adopted:

Resolved, That the Secretary of this Board be directed to prepare a form for a certificate to be used in this State during the existence of quarantine, to be used only by County Health Officers, municipal health authorities and the members of the State Board of Health.

On motion, the Board adjourned.

REPORT OF THE EXECUTIVE COMMITTEE.

To the Mississippi State Board of Health :

GENTLEMEN—In accordance with law the Executive Committee of this Board respectfully submit the following report of their actions since the last annual meeting of the Board. Invested as we are by law with the full powers of the Board during the intervals of its sessions, we have not been unmindful of the grave public responsibility resting upon us, and have endeavored at all times to discharge our duties to the best of our ability. If we have erred in any particular it remains for you gentlemen to point it out so that similar errors may be avoided in the future.

Our first meeting was on April 20th, 1880, which continued for nine days. After that time a number of meetings were held, at each of which a quorum was present. On several occasions, when neither of the other members was present, and the matter to be acted upon was of minor importance, the chairman resorted to consultations by letter.

At the time the Board adjourned there remained to be made nominations of Chief Health Officers for a number of counties which the Board had left for this committee to make. The following nominations were accordingly made and sent to the Governor, with the request that they be appointed for their respective counties:

Amite, ...	Dr. C. H. Bates.
Calhoun.....	Dr. W. L. Dottery.
Coahoma.....	Dr. J. A. Cooper.
Covington.....	Dr. Alex. Fairley.
Greene.....	Dr. B. F. Hamrick.
Jasper.....	Dr. B. F. Duke.
Jones.....	Dr. J. M. Bayliss.
Lawrence.....	Dr. J. A. Rowan.
Newton.....	Dr. C. P. Partin.
Neshoba.....	Dr. T. J. Lee.
Pike.....	Dr. D. U. Ford.
Simpson.....	Dr. Wm. Giles.
Smith.....	Dr. A. G. McLaurin.
Scott.....	Dr. J. L. Gresham.
Winston.....	Dr. A. S. Kirk.

The above named gentlemen were all appointed by the Governor as requested.

The following nominations were also sent to the Governor:

Dr. James Calhoun, for Chief Health Officer of Tallahatchie county, *vice* Dr. A. A. Wheat, resigned.

Dr. M. S. Craft, for Chief Health Officer of Hinds county, *vice* Dr. G. K. Harrington, resigned.

The following counties made applications through the Boards of Supervisors for exemption from a Chief Health Officer under

the provisions of Sec. 12 of our law, and the exemption being granted the Governor was requested to revoke the appointments that had been made:

Choctaw, Jasper, Pontotoc, Union and Winston.

Applications were also received from the following counties, and as their exemption was not deemed prudent and proper, it was refused:

Sunflower, Sumner and Simpson.

An application was also received from Smith county, but as it did not bear the official seal and there was some doubt as to its official character, it was inclosed to Dr. McLaurin, Chief Health Officer of that county, with the inquiry as to whether it was an official communication, and as a reply was not received no decision was reached in this case.

The committee, after devoting nine days to the careful consideration of matters relating to quarantine, finally agreed upon a set of Rules and Regulations, which being presented to the Governor were approved by him. A copy is herewith presented for your consideration.

The question of quarantine is one so surrounded by perplexing questions, and as we had no such thing to guide us as a set of in-land Rules and Regulations heretofore in use for an entire State, as you may imagine, much discussion ensued before a basis could be agreed upon, but we are pleased to state that finally there was perfect unanimity in the adoption of the Rules submitted.

We desire to mention in this connection that as the railroads are not only directly interested in the administration of quarantine, but those attempting to enforce it are in some measure dependent upon their co-operation for its successful accomplishment, we thought it would be well to have some of the officials of these corporations present during our consideration of the subject. Invitations were therefore extended to meet with us to Col. J. C. Clarke, Vice-President and General Manager of the C., St. L. & N. O. R. R.; Col. E. F. Raworth, Superintendent, and Mr. Geo. D. Lawrence, Assistant-Superintendent of the V. & M. R. R. Neither of these gentlemen, however, came.

We will also add that before the Rules were submitted to the Governor for approval a copy was sent to Dr. J. S. Billings, Vice-President National Board of Health, requesting his opinion in regard thereto. He replied, suggesting some changes which were made and others which were not made.

In order to be prepared for an emergency, should one arise, it was thought best to appoint quarantine officers, so as to know on whom we could rely, and the following gentlemen were selected and placed on the reserve list:

Dr. H. J. Ray, Dr. H. A. Gant, Dr. M. J. Lowry and Dr. Robert Field.

Compensation for employes at quarantine stations was agreed upon as follows:

Quarantine officers, \$200 per month; sanitary policemen, \$40 per month; cooks, \$15 per month; nurses, \$20 per month.

Cases of scarlet fever having been reported by the county health officers at Natchez, Vicksburg, Corinth and Port Gibson, a circular on the restriction and prevention of the disease was prepared, and one thousand copies distributed to the health officers. A copy of the circular is herewith submitted. We are glad to be able to state that at no place did the disease assume epidemic proportions, and at Corinth and Port Gibson we have been advised of only one case at either place.

It being indicated to us that it was desired by the National Board of Health that we should recommend the quarantine officer for the National Quarantine Station near Vicksburg, the name of Dr. E. G. Banks was sent for appointment.

On July 12th, 1880, a letter was received from Dr. C. A. Rice, Inspector of the National Board of Health at New Orleans, announcing the arrival of the bark *Excelsior* at that port, laden with coffee and infected with yellow fever, and also stating that there was a case of the disease at the Touro Infirmary that had been removed from the bark. The following day a letter was received from Dr. S. M. Bemiss, a member of the National Board of Health, to the same effect. Being informed that other cases of the disease had subsequently occurred on the *Excelsior*, and that her cargo of coffee was stored in New Orleans, and that a number of persons had been exposed to infection in handling the cargo, it was regarded necessary to take some action to protect our State. The following order was therefore issued on July 16th, after having been approved by the Governor.

OFFICE OF MISSISSIPPI STATE BOARD OF HEALTH. }
JACKSON, MISS., July 16th, 1880. }

Whereas, The bark *Excelsior* from Rio de Janeiro, laden with coffee, having arrived at New Orleans, infected with yellow fever; and,

Whereas, her cargo is now stored in a warehouse in the latter city, and it is said a number of persons who were engaged on and about said bark in unloading, draying and storing her cargo, are now in said city, it is, therefore hereby

Ordered, 1st. That on and after this date and until further orders, no car or train of cars, departing from the city of New Orleans, shall be allowed to enter this State, and no steamboat or other water craft from said city shall be allowed to land at any point in this State, unless they have undergone an inspection by an officer of the National Board of Health, as is provided in the rules of said Board, and are provided with a certificate of such inspection.

2d. That no part of the cargo of the bark *Excelsior*, and no freight from the warehouse in which said cargo is stored, shall be allowed to be brought to any point in this State.

3d. That no person from New Orleans shall be allowed to come to any point in this State unless they hold a certificate from an officer of the National Board of Health that they have not been exposed to infection.

4th. That the chief health officers of the counties, and the municipal Boards of Health, are charged with the enforcement of this order, and any violation thereof will be punished as is provided by law.

WIRT JOHNSTON, M. D.,
ROBERT KELLS, M. D.,
Executive Committee.

Approved:

J. M. STONE, Governor.

It was not regarded necessary to establish quarantine stations, and the County Health Officers were relied on to enforce the order. We will add that Drs. Bemiss and Rice promised to advise us should other cases occur.

It was our intention, if several cases of the disease had originated in New Orleans, to establish quarantine stations at the limits of the State and to enforce our regular rules.

Having been informed that no other cases of the disease had occurred, but that the cargo of the *Excelsior* was still stored in New Orleans, and that other vessels with cargoes of coffee were arriving from infected ports, the following order was issued on July 30th:

OFFICE OF MISSISSIPPI STATE BOARD OF HEALTH, }
JACKSON, MISS., July 30th, 1880. }

No case of yellow fever having been reported in the city of New Orleans since the case of the sailor that occurred on the bark *Excelsior*, the quarantine order of this Board against said city, adopted on July 16th, is hereby rescinded.

In view of the fact, however, that the cargo of the bark *Excelsior* is said to be stored in New Orleans, and that vessels laden with coffee, from ports infected with yellow fever, are constantly arriving in said city, it is hereby

Ordered, That no part of the cargo of the bark *Excelsior*, and no coffee that arrives in New Orleans on and after this date from an infected port, shall be allowed to be brought to any point in this State.

Any violation of this order will be punished as is provided by law.

WIRT JOHNSTON, M. D., }
C. A. RICE, M. D., }
Executive Committee.

Approved:

J. M. STONE, Governor.

We will state, in this connection, that the Health Officer of Amite county, in order to enforce quarantine against New Orleans, established stations and employed officers. He wrote to us informing us of his action, to which the following reply was sent by the Secretary of the Board:

JACKSON, MISS., July 29th, 1880.

Dr. C. H. Bates, Chief Health Officer, Liberty, Miss.:

DEAR DOCTOR: Yours of the 26th inst. is received. When our quarantine order against New Orleans was made, we expected to rely to a great extent on the Inspectors of the National Board of Health at that city for its enforcement, supposing that they had all of the persons and things that were exposed to infection under observation. Dr. Rice, a member of this Board, is the Supervisor of Inspectors at that place. The danger was thought so slight that it was not deemed necessary to establish stations or employ special officers. * * *

* * * * *

Very truly yours,

WIRT JOHNSTON, Secretary.

Subsequently an application was made to us by the Board of Supervisors of the county to defray the expense incurred in quarantining, which was considered and the following letter announcing the decision of the Committee was sent:

JACKSON, MISS., October 21st, 1880.

Mr. Floyd W. Stratton, President Board of Supervisors, Liberty, Miss.:

DEAR SIR: Yours of the 14th inst. has been received and referred to the Executive Committee of this Board, and I am directed to say in reply, that in their opinion they do not possess the authority to pay the bill referred to. The appropriations made by Sections 18 and 21 of "an Act to amend the Statutes in regard to Boards of Health" are contingent, and could only be used to defray expenses incurred by establishing quarantine stations at the limits of the State to prevent the introduction of disease from an adjoining State, as is provided in Section 18; to pay Inspectors under the provisions of Section 23, or to defray the expenses of a local quarantine, as is provided in Section 19. No part of the appropriation could be drawn except for the purposes specified in the law.

Regretting our inability to settle the bill,

I am very respectfully yours,

WIRT JOHNSTON,

Secretary State Board of Health.

On October 5th a joint telegram was received from Dr. Bemiss, a member of the National Board of Health, and Dr. Loeber, Acting President of the Louisiana State Board of

Health, reporting a death in New Orleans the night before from yellow fever. The following day information was received that at least four cases of fever suspicious in character, with three deaths, had occurred in that city. It was deemed important to obtain accurate information in regard to the sickness there, so as to enable us to act intelligently, and with this object in view, after obtaining the approval of the Governor, Dr. L. L. Saunders was appointed a special Inspector and sent there to investigate the disease, and to report by telegraph at once should there be any danger. After a thorough investigation Dr. Saunders submitted a report, and it was not regarded necessary to establish quarantine. A copy of his report is herewith submitted.

In August a communication was received from Dr. D. U. Ford, Chief Health Officer of Pike county, calling our attention to the want of ventilation in the county jail, and stating that the Board of Supervisors had been appealed to by the Sheriff to make the necessary changes in its architecture, and as they had failed to do so that we were appealed to to take action in the matter, and suggesting that one or more members of this committee should visit Magnolia and inspect the jail. A reply was sent, stating that we could not send a member to inspect the jail, as no appropriation was made by the Legislature to cover the expense of such investigations, and that as his statement was regarded as conclusive in regard to the matter we did not deem it necessary to investigate it personally. It was also stated that a communication would be sent to the Board of Supervisors, calling their attention to the defective ventilation of the jail.

The following communication was accordingly sent to the President of the Board of Supervisors:

President Board of Supervisors, Magnolia, Miss.:

DEAR SIR—Our attention having been called by the Chief Health Officer of your county to the bad sanitary condition of your county jail, I am directed by the Executive Committee of this Board to invite your attention to the matter, and to express the hope that it may be in your power to remedy it.

The law only gives us the power to advise in such matters, and we hope you will receive this communication in the spirit in which it is intended.

Should you see proper to make the necessary changes, which it appears from our information are urgent, Dr. D. U. Ford, of McComb City, Chief Health Officer, would no doubt advise with you in regard thereto.

I am, very respectfully yours,

WIRT JOHNSTON,

Secretary State Board of Health.

In December a letter was received from Dr. Gant, Chief Health Officer of Yalobusha county, stating that an application had been made to him for a permit to remove a body,

who had died of yellow fever in 1878, from Colliersville Tenn., to Water Valley for re-interment, and asking our opinion in regard thereto. A reply was sent, saying that in our opinion it would be safe to remove the body if it was required that a very cold spell of weather be selected, and that the body after disinterment and before removal be placed in a metallic casket, metal lined or air-tight coffin, and then put in a box, and the space between the coffin and the box well packed with lime or charcoal.

In February, 1881, a letter was received from Dr. McCormick, a member of this Board, asking our opinion in regard to a case where it was desired to remove a body who died of yellow fever in 1878, from Vicksburg to Yazoo City for re-interment. A reply was sent similar in purport to the one made to Dr. Gant.

The question involved is, so far as we know, unsettled, and, as it is one of so much importance we would be glad to have some expression from the Board in regard to it.

Your attention is respectfully invited to the following correspondence in regard to bone-dust being brought to the town of Kosciusko:

[Copy]

KOSCIUSKO, Miss., February 1st, 1881.

Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Miss.:

DEAR SIR—Last year there was a large quantity of bone-dust sold here for fertilizing purposes. The smell was very offensive, and this winter the agent was here with the intention of bringing on another lot. The Mayor of the town protested and they appealed to me. I decided that he could not bring it into the depot, inside the city limits, but granted permission to build a shed for it just outside of the town limits.

I do not know that the bone dust causes any disease, but the smell is offensive. Have you any experience with it?

Respectfully yours,

[Signed]

J. M. LEWIS,

Chief Health Officer for Attala county.

[Copy]

KOSCIUSKO, Miss., February 2d, 1881.

DEAR DOCTOR—I wrote to you yesterday, telling you that I had objected to bone-dust (fertilizer) coming within the limits of the town, and asking if you had any experience with it, and whether it will cause sickness or not.

I would like to hear from you immediately on that point, for the parties propose to bring it in and test the matter. All I know is that the citizens who live near the depot complain of the offensive smell, and it does seem to me that any substance that has such an offensive odor is unhealthy.

The citizens will back me up in the matter, and the Board

of Aldermen will pass an ordinance against it if I will say that it is liable to cause sickness. I know, on general principles, that such an odor is not healthy, but on the contrary must be unhealthy.

[Signed]

Yours,
J. M. LEWIS.

To which the following reply was sent:

JACKSON, MISS., February 10th, 1881.

Dr. J. M. Lewis, Chief Health Officer, Kosciusko, Miss.:

DEAR DOCTOR—Your letters have been received and referred to the Executive Committee of the Board, and I am directed to say that in their opinion bone-dust possessing the bad odor you describe might affect the public health. We, therefore, think your action in protesting against its being stored in your town, wise, and would suggest that your city government has power, under Section 11 of our law, to forbid its being stored in town.

As you suggest, it might be stored outside of your city limits, at a place selected so as to not be obnoxious to persons.

Very truly yours,

WIRT JOHNSTON,

Secretary Mississippi State Board of Health.

In September, 1880, an epidemic of dengue was reported at McComb City by Dr. Ford, Chief Health Officer of Pike county, but as the disease when reported had assumed epidemic proportions, and as it was represented as being of a mild grade nothing was suggested for its restriction.

The appearance of measles was reported in several localities by the county health officers, and in each case a reply was sent saying that the most important measure to be adopted to prevent the spread of the disease, would be the isolation of cases and of those persons who had been exposed; that it is a disease so rarely fatal, and one to which the public usually attach so little importance that we were of the opinion that it would perhaps be best to not attempt any coercive measures. It was suggested that by freely advising with the people much might be accomplished, by inducing the parents of children sick with the disease, or that had been exposed, to isolate them.

In the case of Starkville, where the A. and M. College is located, it was also suggested to the health officer to inform the officers of that institution of the existence of the disease and of the location of cases so that they might assist in preventing the introduction of the disease among the students.

Several cases of diphtheria were reported in different parts of the State, but in no instance of which we are advised did it assume epidemic proportions. A case occurred in the Deaf and Dumb Asylum in Jackson, but was followed by no others. Had other cases occurred the parents of children in the institution would have been advised to take them home.

JACKSON COUNTY.

A letter was received from the Jackson County Board of Health, under date of April 29th, 1880, informing us that that Board had been organized by the election of Dr. E. F. Griffin, President, and Mr. M. M. Evans, Secretary.

Dr. J. K. McLeod, a member of that Board, having resigned, and Mr. J. B. Delmas having been suggested as his successor, his name was sent to the Governor for appointment.

Dr. E. F. Griffin was suggested by that Board for Quarantine Officer at the port of Pascagoula, and his name was sent to the Governor for appointment.

A communication having been received from that Board stating that in addition to their available funds they would need assistance from the State, as is provided in Section 14 of an Act supplemental to an Act to amend the Statutes in regard to Boards of Health, to the amount perhaps of \$800 00, in order to enable them to conduct their quarantine for the requisite period, after consultation with the Governor, it was decided to furnish them that amount or so much thereof as might be necessary. It was also decided that the amount was to be furnished in installments as needed, and that a statement of their expenditures was to be made to us.

Their quarantine rules and regulations were submitted to us for approval. We suggested fifteen days detention so as to make them conform to the rules of the State Board, and the insertion of an additional rule giving the Quarantine Officer the authority to apply such additional measures as might be deemed indispensable for the protection of the public health, and if such additional measures should be applied requiring him to report the fact to their Board at once, giving at the same time the reasons therefor.

On May 10th, 1880, an order was issued to quarantine the port of Pascagoula on and after the 15th of May, or earlier if regarded necessary by the Jackson County Board of Health, against all ports defined as infected or that might be defined as infected by said Board; said quarantine to be continued for such a time as might be regarded necessary.

That Board having made application for assistance and sent the certificate of the Chancery Clerk that the Secretary and Treasurer had given bond and security for \$1000 00, on August 3d, 1880, four hundred dollars was drawn from the Auditor of Public Accounts on the certificate of the Secretary of the State Board of Health, endorsed by the President thereof, and approved by the Governor, as is provided by law, and the amount sent by express to them.

On October 26th, 1880, \$225 00 additional was drawn on their application and sent to them.

The receipts for these amounts are in the hands of the Secretary of the State Board. Statements of their expenditures were made to us and are herewith submitted for your examination.

Their quarantine was discontinued on November 1st, 1880. Reports were made to us of their quarantine operations, which are herewith submitted.

We desire to call the attention of the Board to the decision as to the effect of the "Act to amend the Statutes in regard to Boards of Health," on the special law enacted in 1877 relating to the county of Harrison, and of course applying also to the county of Hancock, and for this purpose we append the correspondence on the subject. The following letter from Dr. Geo. N. Smith, President of the Harrison County Board of Health, will explain itself:

PASS CHRISTIAN, April 15th, 1880.

WIRT JOHNSTON, M. D.

MY DEAR SIR: It appears to me that the bill framed by the State Board of Health and passed by the Legislature at the last session, has left us, in this county, not only without a quarantine, but without a quarantine officer. Should the National Board of Health fail to establish a quarantine station at Ship Island, (which I fear they will do, from the lights before me,) what will your State Board do with us? You are no doubt aware that we have a harbor two miles from our town, where ships drawing fifteen feet of water, enter direct from Havana and other West India ports. It appears that the framers of the old quarantine law ignored that port, on act of their ignorance of such port. It is our misfortune to be more exposed to yellow fever than any other portion of the State, both from abroad and at home, and thus far nothing has been done to protect us. I write you frankly about the facts that you may have it in your power to call attention of the State Board to them.

Sincerely yours, etc.,

(Signed)

GEO. N. SMITH.

To which the following reply was sent:

JACKSON, Miss., April 22d, 1880.

Dr. Geo. N. Smith, Pass Christian, Miss.:

DEAR SIR: Yours of the 15th inst. has been received: When the State Board of Health framed the bill amending the Statutes in regard to Boards of Health, it was not the purpose to repeal the law approved in 1876 (1877) providing for Boards of Health in the counties of Harrison, Hancock and Jackson. In 1878, when the amendment to the State Board of Health law was presented to the Legislature, some of the representatives of the Sea-Coast counties preferred that they should not be placed under the jurisdiction of the State Board, and it was supposed the same feeling existed.

The recent law was not passed as originally introduced, but

was amended in some particulars by the Legislature. For instance, a section was added repealing all acts or parts of acts in conflict with it.

We would very much regret if you were without health laws adequate to your protection. However, the Executive Committee of the State Board of Health, now in session, directs me to say that their opinion, based on high legal authority, is that the law approved in 1876 (1877,) so far as it relates to the counties of Harrison and Hancock, is not repealed and is still in full force and that your county should continue to operate under its provisions.

Very respectfully yours,

WIRT JOHNSTON,
Secretary State Board of Health.

We afterwards received a communication from the Harrison County Board, dated May 24th 1880, inclosing their order declaring quarantine at the ports of that county on and after June 1st, 1880, until otherwise ordered.

Respectfully submitted,

WIRT JOHNSTON, Chairman,
C. A. RICE, M. D.,
ROBERT KELLS,

Executive Committee State Board of Health.

April 1st, 1881.

REPORT OF SECRETARY.

To the Mississippi State Board of Health :

GENTLEMEN: I have the honor to submit my report as Secretary of the Board, from December 1st, 1879, to January 1st, 1881.

On March 15th, 1880, a copy of the following circular letter was sent to each of the Presidents of the then existing County Boards of Health, to inform them of the amendment to the law abolishing those Boards and providing for a Chief Health Officer instead:

OFFICE STATE BOARD OF HEALTH, }
JACKSON, Miss., March 15, 1880. }

DEAR DOCTOR: The Act amending the Statutes in regard to Boards of Health, approved March 4th, 1880, abolishes County Boards of Health and provides instead for the appointment of a County Health Officer, by the Governor, on the nomination of the State Board of Health. The Health Officer is to receive a salary to be fixed by the Board of Supervisors, but is not to exceed the salary of the Superintendent of Education.

The State Board will convene in this city on April 2d, for the purpose of making these nominations.

Very truly yours,

WIRT JOHNSTON,
Secretary State Board of Health.

And in order to also inform the Boards of Supervisors of the change in the law, a copy of the following circular letter was sent to the President of each:

OFFICE STATE BOARD OF HEALTH, }
JACKSON, March 18th, 1880. }

DEAR SIR: The law amending the Statutes in regard to Boards of Health, approved March 4th, 1880, abolishes County Boards of Health, and Section 12 of that law provides for the appointment of a County Health Officer, by the Governor, on the nomination of the State Board of Health. The Health Officer is to receive a salary to be fixed by the Board of Supervisors, to be paid out of the county treasury, but is not to exceed the salary of the Superintendent of Education. It is also provided that any county remote from railways, navigable

streams and the sea-coast, and having a sparse population, may be exempt from the provisions of this section by application to the State Board of Health, made by the Board of Supervisors, provided the Board of Health deems it prudent and proper to grant such exemption.

Very respectfully yours,

WIRT JOHNSTON,
Secretary State Board of Health.

A copy of the law amending the Statutes in regard to Boards of Health, and a copy of the Sanitary Rules of the Board, with a copy of the following letter, were sent to each County Chief Health Officer after appointment:

OFFICE MISSISSIPPI STATE BOARD OF HEALTH, }
JACKSON, April 29th, 1880. }

DEAR DOCTOR: There have been sent you by mail, for your guidance as Chief Health Officer, a copy of the law amending the Statutes in regard to Boards of Health and a copy of the Sanitary Rules of this Board.

It is hoped you will use every effort to improve the general sanitary condition of your county, for it is to be remembered that it is our duty to endeavor to prevent other diseases, as well as epidemics.

It would be well for you to try to secure the co-operation and support of the people, so as to enable you to discharge your duties more efficiently.

Should a case of yellow fever, or a case suspicious in its character, occur in your county, it is desired that you will *at once* report the fact to this office, by telegraph. Should any other contagious or infectious disease make its appearance the report may be made by letter.

It is expected that on the 1st of October of each year you will make a written report to this Board, setting forth your actions, and giving a general statement of the diseases that have prevailed during the year, and the amount of sickness as compared with former years.

It is also desired that you make suggestions in regard to sanitary reforms necessary in your county, and also include in it such other matters relating to your duties that may occur to you.

It is suggested that you keep such notes as will enable you to make the report.

It is also expected that you will at any time report any matter of interest.

We will at all times be glad to render you such assistance as may be in our power.

Very truly yours,
WIRT JOHNSTON,
Secretary State Board of Health.

The address prepared by a committee of the Board, consisting of Drs. Kittrell and Wright, to the authorities of incorporated towns, urging the importance of keeping a record of vital statistics, was distributed to the Mayors of incorporated towns and the County Health Officers.

I regret to say that so far as this office has been informed, very few of the towns have acted in accordance with the suggestion contained in the address.

Thinking it was of great importance that each incorporated town in the State should organize a Board of Health, the following circular was sent to the Chief Health Officers of the counties :

OFFICE OF SECRETARY MISSISSIPPI STATE BOARD OF HEALTH, }
JACKSON, Miss., July 1st, 1880. }

DEAR DOCTOR: Your attention is invited to the importance of each incorporated town in your county organizing a Board of Health, and it is requested that you communicate with the authorities of such towns and endeavor to induce them to organize a Board. If any town should not have the power, under its charter, to enforce Sanitary Rules, Section 11 of "an Act to amend the Statutes in regard to Boards of Health," approved March 4th, 1880, gives them, according to the opinion of the Attorney-General, full and ample power to enforce any ordinance necessary for the protection of the public health.

A copy of the Sanitary Rules of this Board has been sent to the Mayor of each town.

Should any municipal Boards be organized in your county, or if any already exist, please have the kindness to furnish this office with the address of the Presidents.

The Legislature, at its last session, repealed the law that provided for the general registration of vital statistics, but Section 11 of the present law, provides for the registration in all incorporated towns. The State Board is desirous that the work should be undertaken by the towns, as you will perceive from the inclosed copy of an address to the authorities of towns, and your assistance is respectfully requested in the matter. A copy of the address has been mailed to the Mayor of each town in your county known to be incorporated.

Very truly yours,

WIRT JOHNSTON,

Secretary State Board of Health.

I am sorry to say that the organization of only a few Municipal Boards was reported to this office.

In May, 1880, Dr. B. A. Vaughan, Chief Health Officer, reported a case of small-pox in Lowndes county, three and a half miles from Columbus. It is hardly necessary to state that the proper steps to secure isolation and non-intercourse as well as the vaccination of the other laborers on the place were at

once taken by that intelligent officer. No other case occurred there that we are informed of.

In May, 1880, a communication was received from Dr. R. G. Wharton, a member of the Board, inquiring as to the power of the town government of Port Gibson to enforce an ordinance which he desired passed, requiring certain sanitary reforms, to which the following reply was sent:

JACKSON, MISS., May 10th, 1880.

DEAR DOCTOR— * * * * *

In regard to the power of your town government to make the sanitary reforms mentioned, I will state that I have just had an interview with the Attorney General, and he announces as a *positive opinion*, that even if no such power should be given by the act of incorporation, that Section 11 of the Act to amend the Statutes in regard to Boards of Health, confers full and ample power; that your town government can enforce *any ordinance* deemed necessary for the protection of the public health.

* * * * *

Very truly, etc.,

WIRT JOHNSTON.

In June an application of the Harrison county Board of Health to the National Board of Health for assistance was approved and forwarded, and in July an application of the Jackson County Board, to the National Board, for assistance to equip their quarantine station, was approved and forwarded.

In July a communication was received from the Tennessee State Board of Health, saying that in order to enforce their quarantine order against New Orleans, forbidding the introduction of certain articles, it would be necessary to infringe upon the territory of this State at Corinth, there being no suitable locality at the line of their State, and asking the permission of our officers to do so. The matter was referred to Governor Stone, who granted the permission.

In September Dr. Hill, President, appointed all of the members of the Board delegates to the American Public Health Association, which met in New Orleans in December.

An invitation was received from the Louisiana State Board of Health to send delegates to a Quarantine Conference, which was held in New Orleans during the session of the American Public Health Association. A letter was written to that Board accepting the invitation, and the President, Dr. Hill, being informed, appointed delegates.

The following Health Officers resigned during the year:

Dr. J. R. Slaton, of Tate county; Dr. A. A. Wheat, of Talahatchie county, and Dr. G. K. Harrington, of Hinds county.

Dr. R. D. Farish, of Issaquena county, declined to accept the appointment as Health Officer of his county.

It becomes my sad duty to report the death of Dr. H. C. McLaurin, Chief Health Officer of Rankin county. He was an

estimable gentleman, a skillful physician and an efficient Health Officer.

Annual reports for the year ending October 1st, 1880, were received from the Health Officers of the following counties:

Adams, Alcorn, Attala, Bolivar, Benton, Carroll, Chickasaw, Claiborne, Clarke, Copiah, Coahoma, DeSoto, Grenada, Holmes, Jefferson, Kemper, Lincoln, Lowndes, Lafayette, Lee, Leflore, Leake, Monroe, Madison, Marshall, Newton, Noxubee, Oktibeha, Prentiss, Panola, Sharkey, Simpson, Sumner, Tishomingo, Tippah, Warren, Washington, Wilkinson, Yalobusha, Yazoo.

We have received the following publications since my last report:

Alabama—Circular No. 3 of the State Board of Health.

Connecticut—Third Annual Report State Board of Health.

California—Report of State Board of Health 1879—1880. Report of the Committee on Public Hygiene and State Medicine, made to the State Medical Society.

Colorado—Annual Report State Board of Health 1879—1880.

Delaware—Biennial Report State Board of Health 1879—1880.

District of Columbia—Report of Health Officer 1879.

Georgia—Third Annual Report of the Board of Health of the city of Augusta. A pamphlet on National Sanitation, by J. C. LeHardy, M. D., Savannah.

Illinois—Second Annual Report State Board of Health.

Louisiana—Annual Reports State Board of Health 1879 and 1880. Rules and Regulations State Board of Health. Report of Committee of New Orleans Auxiliary Sanitary Association on the Construction and Management of Privies.

Massachusetts—Eleventh Annual Report State Board of Health. First Annual Report State Board of Health, Lunacy and Charities. Thirty-eighth Registration Report.

Michigan—Seventh Annual Report State Board of Health.

Missouri—Annual Report of the Health Commissioner of the city of St. Louis.

New York—Fourth and Fifth Annual Reports of the Board of Health of the city of Utica. First Annual Report of the Sanitary Reform Society of New York.

Ohio—Thirteenth Annual Report of the Health Department of the city of Cincinnati.

Pennsylvania—Annual Report of the Health Officer of the city of Philadelphia. Report of the Board of Health of the city of Reading, 1880.

Rhode Island—Second Annual Report State Board of Health. Twenty-seventh Registration Report.

Tennessee—First and Second Annual Reports Taxing District of Shelby County.

Vermont—Annual Report of the Health Officer of the city of Burlington.

Virginia--Report of the Board of Health, Births, Marriages and Deaths of the city of Richmond, 1879.

Wisconsin--Fourth Annual Report State Board of Health.

Sanitary and Statistical Report of the Surgeon-General U. S. Navy, 1879.

Respectfully submitted.

WIRT JOHNSTON,
Secretary.

EXPENSES OF THE BOARD FROM DECEMBER 1ST, 1879, TO
JANUARY 1ST, 1881.

Expenses incurred by members in attending meetings:

Meeting on December 17th and 18th, 1879, at Jackson:

B. F. Kittrell.....	\$ 20 00
C. A. Rice.....	12 50
F. W. Dancy.....	22 75
S. V. D. Hill.....	28 50
Geo. E. Redwood.....	14 00
E. P. Sale.....	34 75
	\$132 50

Expenses and per diem, meeting on April 2d, 3d, 5th, and 6th, 1880, at Jackson:

C. A. Rice.....	\$ 38 00
B. F. Kittrell.....	48 50
D. L. Phares.....	39 35
J. W. Bennett.....	34 50
J. M. Taylor.....	65 00
Robert Kells.....	12 00
S. V. D. Hill.....	49 50
T. D. Isom.....	37 45
F. W. Dancy.....	42 50
E. P. Sale.....	33 00
R. G. Wharton.....	29 00
P. J. McCormick.....	28 30
Geo. E. Redwood.....	21 00
John Wright.....	41 00
	\$519 10

STATIONARY AND PRINTING FROM PUBLIC PRINTER.

1879.

*August 30. 250 Certificates for Quarantine Stations..	\$ 3 00
*August 30. 500 Bills of Health for steamboats for Quarantine Stations.....	7 50

*Sept. 1880.	3.	105 Postal cards, printed.....	1 25
March	17.	500 Official size envelopes, printed.....	4 50
March	17.	1000 No. 6 envelopes, printed.....	6 00
March	17.	1 ream letter-heads.....	6 00
March	17.	300 copies of Act to amend the Statutes in regard to Boards of Health.....	20 00
March	20.	1000 copies Sanitary Rules and Regula- tions.....	55 00
June	9.	250 letter-heads for President.....	3 00
June	9.	250 No. 6 envelopes for President.....	3 00
June	30.	1000 copies Quarantine Rules and Regu- lations.....	49 50
July	1.	300 letter circulars urging the organiza- tion of Municipal Boards.....	4 00
July	5.	75 letter circulars calling attention to the importance of Registration of Vital Statistics by Towns.....	2 50
July	16.	250 copies quarantine order against New Orleans.....	3 50
July	30.	250 circulars rescinding quarantine order against New Orleans.....	2 75
Sept.	23.	1 ream letter heads.....	6 00
October	23.	50 postal cards to County Health Officers,	1 50
Dec.	4.	75 postal cards relating to scarlet fever,	1 75
Dec.	6.	1000 pamphlets on the Restriction and Prevention of Scarlet Fever.....	20 00
			\$200 75

We also received from Secretary of State and Auditor:

- 1 letter press and fixtures.
- 1 file for papers.
- $\frac{1}{4}$ ream legal cap paper.
- 1 box pens.
- 1 double letter size hektograph.
- 1 quart of ink.

*These items were omitted in the Public Printer's account for 1879.

RECEIPTS AND EXPENDITURES OF SECRETARY FOR POSTAGE, EX-
PRESSAGE AND TELEGRAMS FROM DECEMBER 1st, 1879,
TO JANUARY 1st, 1881.

1880.	DR.		
March	9.	To amount from Auditor.....	\$ 25 00
June	5.	To amount from Auditor.....	30 00
August	3.	To amount from Auditor.....	25 00
		To amount due Secretary to balance.....	3 22
			\$83 22

1879.

CR.

By amount due Secretary on statement up to December

1st, 1879.....	\$	1 02
Dec. 2. By postage stamps.....		1 00
Dec. 8. By postage stamps.....		1 00
Dec. 15. By postage stamps.....		1 00
Dec. 31. By postage stamps.....		1 00

1880.

January.	By P. O. Box rent, etc.....	1 99
March	5. By postage stamps and wrappers.....	1 30
March	9. By postage stamps.....	5 00
March	17. By postage stamps and wrappers.....	5 00
April	10. By P. O. Box rent, etc.....	1 53
April	13. By postage stamps.....	4 00
April	By telegram sent	80
April	28. By postal wrappers.....	3 36
April	29. By postage stamps.....	1 00
April	30. By postal wrappers.....	1 12
May	21. By telegram	75
June	2. By postage stamps.....	5 00
June	5. By postal wrappers	85
June	11. By postal cards.....	1 00
June	23. By amount sent Dr. Hill, President, for postage for his office.....	5 00
July	2. By P. O. box rent.....	1 50
July	3. By postal wrappers.....	2 24
July	7. By stamped envelopes, (1 cent).....	1 74
July	14. By telegram received.....	65
July	15. By telegram sent.....	1 19
July	15. By telegrams received, 25 and 70 cts....	95
July	16. By telegram sent	50
July	17. By stamped envelopes, (1 cent).....	2 90
July	20. By telegram sent.....	55
July	20. By telegram received.....	55
July	24. By postage stamps.....	1 00
July	25. By telegram received.....	50
July	31. By stamped envelopes, (1 cent) and stamps, (3 cents).....	4 00
August	30. By telegram sent.....	1 05
Sept.	8. By telegrams received and sent.....	1 05
Sept.	21. By telegrams received and sent.....	1 20
October	2. By P. O. box rent.....	1 50
October	5. By telegrams received and sent.....	3 80
October	6. By telegrams received and sent.....	5 15
October	8. By telegram sent	1 15
October	22. By postal cards	50
October	27. By postage stamps.....	3 00
Nov.	5. By postal cards.....	25
Dec.	2. By postal cards and wrappers	1 33

Dec.	20. By postage stamps.....	2 00
Dec.	22. By postal cards.....	25
		\$ 83 22

Expenses and per diem of Dr. L. L. Saunders, sent to New Orleans as an Inspector:

1880.

October 26th.....\$ 104 95

Salary of Secretary from December 1st, 1879, to March 1st, 1880 @ \$250 00 per annum.....	\$ 62 50
From March 4th, 1880, to January 1881, @ \$800 00 per annum.....	666 66
	\$ 729 16

Amount furnished Jackson County Board of Health under the provisions of Section 14 of an Act Supplementary to an Act to amend the Statutes in regard to Boards of Health:

1880.

August 3d.....	\$ 400 00
October 26th.....	225 00
	\$ 625 00

REPORTS OF CHIEF HEALTH OFFICERS

OF COUNTIES FOR THE YEAR ENDING SEPTEMBER 30TH, 1880.

COPIAH COUNTY.

Report of Dr. G. W. Purnell, Chief Health Officer.

To the Board of Health, State of Mississippi:

GENTLEMEN. I have the honor to make the following report of the health of Copiah County, and of my actions, for the last six months:

Copiah County is one of the largest, most populous, and prosperous counties in our State. Our Eastern boundary is Pearl River, which river, from frequent overflows, furnishes an abundance of material for the propagation of malarial fevers. Bayou Pierre runs through our western portion, and also, from the thick, dense swamps that line its banks, is the home of all malarial fevers. Numerous little creeks intersect the county through its whole extent, subject to overflow after each hard rain, and are breeding places of miasma. Of course then malarial fevers are more prevalent than any disease. During the month of April a great deal of rain fell, with rather low temperature, and but little sickness. The month of May was warm and dry, and dysentery, roseola, measles, mumps and whooping cough, were more or less prevalent all over the county; also typhoid fever in some localities, but the mortality was very small. The first part of May was healthy, with rainy weather, as was the latter part, with a drought extending through June into July to the latter portion, when heavy rains fell. Dysentery also prevailed to a limited extent through the month of June. The month of July was one of the healthiest of the year. During the month of August the weather was very changeable—the first part pleasant, the latter portion warmer. During this month, intermittent, bilious, and congestive fevers were very prevalent through the western portion of our county. During the month of September, with its heavy rainfall, malarial fevers of the same types were prevalent in various portions of the county with the exception of the central portion principally. But taking it on the whole, in comparison with former years, and leaving out a small portion of our north-

western section, the health of the county has been better than for several years, and will compare favorably with that of any preceding year.

I have visited various portions of the county, and have endeavored to instil into the people an interest in public health affairs, but find it an up-hill business. Even in my own town, Hazlehurst, everyone seems lithargic, and as long as there are no rumors of yellow fever, are willing to go on in the old beaten track, trusting in Providence until an epidemic threatens, and then trusting to their powers of locomotion. With our people, health matters are in their infancy, and until 1878 it was the settled opinion that yellow fever could not spread in the piney woods. Our having had no epidemic since that year seems now to re-confirm them in their original opinion.

The public buildings of our county are very few. I found the ventilation of our county jail very deficient, but succeeded in getting a very rigid and economical board of supervisors to have additional windows put in.

I have written to the several boards of mayor and aldermen of each of our incorporated towns, and insisted upon the establishment of Boards of Health in each town respectively, which generally has been done.

In my own town I had considerable trouble to have ordinances passed requiring registration and the requiring of burial permits. Other portions of the county I have not heard from in regard to these matters.

I have examined the drinking water in various portions of our county, and, with a very few exceptions, have found it pure and good.

I believe Copiah County can show, for the last six months, as good a bill of health with as low a death rate, as any in the State.

CHICKASAW COUNTY.

Report of Dr. J. S. Cain, Chief Health Officer.

To the Honorable Board of Health of the State of Mississippi :

GENTLEMEN : In accordance with instructions contained in your circular of April 29th, 1880, I herewith submit my report as Health Officer of Chickasaw County for the year ending October the 1st, 1880.

According to instructions contained in said circular, and my interpretation of the "Act to amend the Statutes in regard to Boards of Health," I have endeavored to maintain a careful supervision over my county, and have sought to foresee and anticipate any agency which in my judgment might lead to

the development of disease amongst our people; and had such agencies manifested themselves, would have taken prompt measures to have removed or abated the same. But I am pleased to report that general good health has prevailed throughout the entire county during the year. No contagious, infectious or epidemic diseases have prevailed, and no marked types of any character of disease have been noted.

The physicians of the county generally manifest a laudable willingness to aid and co-operate in the contemplated plan of preventive sanitation, but the people will require much education on that subject, before they will appreciate preventive measures, or voluntarily aid in their enforcement—the prevailing sentiment among them being that the physician's duties only commence after disease has taken hold of them.

There has been a marked diminution of disease in this county during the past year, "as compared with former years." Besides, the diseases which have occurred have been more tractable, and amenable to treatment than usual, and the mortuary lists have been exceedingly small.

CAUSES FOR DISEASE.

The western two-thirds of this county consists of the elevated hilly region known as Pontotoc Ridge, gradually sloping westward and becoming what is known as the Piney Flat Woods. This region is usually well drained, and with the exception of now and then a small malaria-generating locality, which, under favorable conditions produce their summer and fall crop of intermittents, remittents, etc., is unusually exempt from disease. The water used is usually obtained from wells, sunk from fifteen to thirty feet in the sandy soil. These, I think, are often injudiciously located so as to receive the sipeage from stable lots, stock yards, etc.

The Eastern third of the county consists of the head or Northern extremity of the East Mississippi Prairie region, and is the most elevated and best drained portion of that region. Here, I am satisfied the drinking water affords the most fruitful cause of disease. The water is generally obtained from cisterns cut in the rotten limestone rock which underlies the entire region at a distance of from one to fifteen feet from the surface. The water, with but few exceptions, sipes into the cisterns during the winter and spring, percolating through the spongy soil, and carrying the impurities with it from the surface of the earth. Especially in thickly settled communities like Okolona, I am convinced that this drainage from surface impurities into the cisterns, is a very common cause of disease, and to it I have with much certainty in former years traced several outbreaks of zymotic diseases. I have sought to have this remedied by ordinances of the town, forcing all citizens to cement their cisterns, so as to prevent sipeage, but up to this time have not succeeded. These, with the autogenetic agen-

cies, inseparable from careless filthy humanity, especially when dwelling in over-crowded, ill-ventilated abodes, as many of our negroes will do from preference, are the only causes which would likely produce disease in this county or foster and develop epidemics if introduced from elsewhere.

I believe that the law should be so amended as to provide and fix the compensation of County Health Officers upon some equitable plan, and not leave it to the discretion of Boards of Supervisors, which are usually composed of men not appreciative of preventive measures.

JEFFERSON COUNTY.

Report of Dr. N. L. Guice, Chief Health Officer.

To the State Board of Health :

GENTLEMEN : I would respectfully report, that since my appointment as "Chief Health Officer" of this county, (in April,) I have performed the following official services, to-wit:

May 5. Examined the drinking water (a well) of a family and finding it impure, condemned and closed the well. Protracted ill health of the family led to suspicion of impurity of the water. Family in good health since. Other specimens of drinking water have been examined and in all cases found pure.

May 10. Memorialized Board of Aldermen of Fayette, urging that the town be cleansed and kept in good sanitary condition during the summer months. Recommendation immediately carried out.

May 14. Procured the publication of the Rules and Regulations of the State Board of Health in the county paper.

May 21. Published an Address to the people, calling attention to the efforts being made by the State to improve our sanitary condition, and urging strict compliance with Rules and Regulations of State Board of Health.

June 1. Diphtheria was discovered in a white family of five persons. Measures were at once instituted to prevent the spread of the disease beyond the house occupied by the family. Three cases occurred in the house, all ending in recovery. Prior to the discovery of the nature of the disease, however, a family living in sight of the infected house had visited the sick without reserve. Two of the three persons composing this family also had the disease. These families composed a part of the tenant force of a large plantation in the country. Up to this date no case of the disease has occurred beyond the two houses mentioned. The entire tenant force of that plant-

ation consisted of twenty families, and but for the rigid precautionary measures enforced the disease must have spread over the place.

In the month of June I visited six public school buildings of this county. The location and sanitary surroundings of these buildings were found to be good. These buildings were evidently not constructed for comfort, nor planned by a skillful sanitary engineer. They are all poorly supplied with light, none having more than half as much as will enable the pupil to study with ease and comfort to the eye. These six schoolhouses furnish a fair average of all such buildings in the county, and hence it is safe to presume that there is no school building in the county constructed upon correct principles. Public sanitation being in its infancy here, the comfort or preservation of the eye of the pupil have not been duly considered in the construction of these buildings.

In July I procured the adoption of ordinances by the towns of Fayette and Rodney, enforcing registration of all deaths in these towns. These ordinances were drafted by myself and call for the record of all needed information. They also make it incumbent on the proper officers to furnish a copy of the record to any State officer when called for.

July 20 I wrote out instructions and forwarded same to agents of steamboat landings in the county, procuring the enforcement of State Board of Health order of 16th July. On August 3d these agents were also informed by me of the additional order of State Board of July 30.

In response to a circular sent to all practising physicians of this county in May last, asking for such information (to be furnished in September) as would enable me to report most accurately to the State Board of Health, only five responses have been received. The information supplied by these letters, coupled with my own personal observation, enable me to report that the present has been an uncommonly healthy year in this county. Pneumonia and catarrhal diseases prevailed to a limited extent during the winter and spring months, and the deaths from pneumonia were certainly not as numerous as in the preceding year. Pneumonia was this year, as formerly, more prevalent and more fatal with the colored than with the white population. This is due mainly to the wretched hygienic surroundings of the average negro.

Pertussis has prevailed in some sections of the county during this year. Very few deaths are reported from this disease. A mild form of measles reported in a single neighborhood. Dr. J. N. McPherson reports "a few cases of typhoid fever on the northern border of the county," and says, "the above-named disease is on the increase here, as a few years ago it was almost unknown in this neighborhood." This disease is certainly very rare in this county since the close of the war. Dr. McPherson could not trace the origin of the disease to a definite cause.

Dr. P. H. Wade reports that gonorrhœa is very prevalent in his community, and is mainly confined to the negro race. He reports an increased number of cases of abortion, and attributes the majority of cases to gonorrhœa. Malarial fevers have been less prevalent this year.

I am happy to report that the people are strongly inclined to aid me in all matters or measures suggested or adopted in the interest of the public health. This much, however, I cannot say of some of our practicing physicians. These physicians are far from *obstructing* efforts to improve public health. I can only complain of their lack of interest in sanitary matters. This, I think, will not prove a constant barrier in this county. It is only necessary that these gentlemen shall be convinced that they are neglecting a duty owed by them to the public, and this, I think, can be accomplished by a little farther effort on my part.

Upon the opening of the public schools it is my intention to vaccinate as many as possible of the school children in the county. This can be done most economically by visiting each school. No charge will be made against parents for this service.

The people here appear to appreciate the efforts at public sanitation now being made by the State, and I am convinced that they are prepared to yield cheerful obedience, or even a helping hand, to the authorities in promoting the interests of the public health.

KEMPER COUNTY.

Report of Dr. L. M. McLendon, Chief Health Officer.

Gentlemen of the State Board of Health:

In obedience to your instructions I hereby submit the following report as Chief Health Officer of Kemper County :

I have just completed a thorough canvass of every portion of the county, and have taken a close sanitary view of places that have been considered "sickly," and of these I gave more time and attention, to places where typhoid fever and diphtheria have prevailed in former years.

Taken as a whole, the sanitary condition is comparatively good. The total sickness from all causes has been twenty-five per cent. less than last year. But what it lacks in amount has been to some extent made up in severity, as the death rate from all causes has been ten per cent. greater than last year. The percentage of both sickness and deaths, has been about equally divided between the white and colored races, with a

marked tendency to increase of consumption among the latter.

The prevailing diseases have been malarial fever, and in the latter part of the summer they were prone to dangerous congestions, but when properly treated rarely terminated fatally. I have advised the people as to the proper location of their dwellings in malarial localities, specially warning them against locating their houses near the head of deep hollows or ravines terminating in swamps or lagoons that dry up in summer, as I find this to be oftener an *unsuspected* cause of malarial troubles than any other among the uniformed. There have been a few cases of so-called yellow chills (malarial hæmaturia) in this county.

There has been some typhoid fever in different portions of the county, mostly of a mild type. I have tested the drinking water at every place where it has been this year, and also in former years, and have found it to contain organic impurities in almost all of the specimens. At one place there was a case this year, and the patient having a bad diarrhœa and involuntary discharges, soiled the bedding very much. This bedding being washed in the yard above the well and the water in which it was washed poured out on the spot and ran down to the well and *some of it was seen to run in the well*. All who drank regularly of the water after this, were taken with typhoid fever, until six persons were taken in rapid succession, after which time the use of the well was stopped and no more cases occurred. The first case at this place is supposed to have been contracted elsewhere.

With regard to diphtheria, I find the medical profession divided on the issue whether or not we have had any in the county. Some of them say it is diphtheria and others say it is not. Without taking sides in the controversy, I must say that if there is a distinction between diphtheria and the "sore throat" that we have here, it is a distinction without a practical difference. I find that it almost always attacks all the children of a family when once started, and that it is speedily fatal if not promptly treated. Therefore I take all proper steps to prevent infection and spreading, and have always succeeded when I have been notified in time. It is greatly dreaded by the people who seem to be very glad that there is a Health Officer to look after it.

With this exception we have had no epidemics this year except a little whooping cough in one corner of the county.

I have examined the drinking water in every neighborhood in the county, and find it very pure except the instances given above in considering typhoid fever, finding nothing wrong with it except what may be remedied by being kept cleaned out. This applies exclusively to the wells. The springs and cisterns are all right in every particular.

I find nothing wrong worthy of interference in the privy system, the ventilation and accumulations of hotels, etc., in

the small towns. And in the ventilation of public buildings, our courthouse is, I think, defective with regard to ways of escape in case of fire.

LEAKE COUNTY.

Report of Dr. W. R. Blailock, Chief Health Officer.

Wirt Johnston, M. D., Secretary State Board of Health :

In compliance with your instructions, I send a statement of my doings as Health Officer, the diseases that have prevailed during the year. etc.

On entering upon the duties of my office I endeavored to let the people know that a new health law was existing, calling attention to the powers of the State Board of Health and to the Rules adopted by that Board.

I earnestly solicited all citizens of the county to co-operate with me in the enforcement of these Rules, assuring them that much good might be accomplished.

I especially requested the physicians of the county to assist me by reporting any matters that might come under their observation, requiring attention from a sanitary point of view, assuring them that any suggestions they might be kind enough to make would be thankfully received, and would receive prompt attention. I also asked them to send me reports about September 20th of the prevailing diseases of the year, and the amount of sickness as compared to previous years.

This is a synopsis of an article which I had published in *The Carthaginian*, copies of which were sent to all parts of the county.

I next had a circular issued giving the Sanitary Rules adopted by the State Board, which I considered more especially applicable to the county at large, *i. e.*, from Rule 8 to 19 inclusive, and Section 10 of the law. I also suggested that any one in the county who might be suspicious of the purity of his drinking water would furnish me with a specimen of it in order that I might analyze and give directions for purifying, if impurities were found. The other Rules I copied and posted so that they might be read by every one.

I reported a stagnant pool of water near the corporate limits of Carthage, to the Board of Mayor and Aldermen. Action was at once taken for its drainage.

In response to the call I made on physicians, except in cases where I interrogated them personally in regard to pre-prevailing diseases, I have not received a single syllable, but from the people at large I have. The law seems to take well.

with them, and I believe there will be no difficulties interposed by them in its strictest enforcement.

I have been furnished with numbers of specimens of drinking water, some of which were very impure. In the determination of the potability of water I have depended as much upon the microscopic examination of the sediment as upon chemical tests. I unhesitatingly condemn water as unsuitable for drinking purposes if I find the sediment consisting of cryptogamous plants and animal life, or of either to any considerable extent.

My notes of prevailing diseases were taken in a general way, and as I have no definite data of previous years, I shall not attempt a numerical comparison, but give it in a general way.

1880—April, May and June, dysentery, typhoid fever, catarrhal affections and some malaria were unusually prevalent in some parts of the county. As compared to the same months of 1876-7-8 and 9, it is much greater. July, August, September, all parts of the county unusually healthy; less sickness by far than occurred during either of the years above cited.

The immunity from sickness during the past six months is, I think, a natural sequence of the frequent floods of rain that occurred during those months.

In the way of sanitary reforms necessary in this county—if, indeed, it can be classed under this head—I would suggest the early adoption of some measures that will secure a registration of deaths and births.

I mention this subject with all deference, knowing that the State Board of Health recognizes fully the importance of vital statistics; but doubts the wisdom of asserting the power which is certainly delegated to it by the law of compelling reports. I am aware that many difficulties would arise were such measures taken; violent opposition would be expected from the great bulk of irregular practitioners, as they have a penchant for obscuring and keeping in the back-ground deaths that occur under their charge, and in fact of opposing everything calculated to enlighten and promote the advancement of medicine. But as regards regular practitioners, quite the reverse I believe to be true. I think if they were required to report all deaths and births monthly, that after a short time most of them would take pleasure in making reports, and that, too, without compensation. Such laws are in operation in several States and work very well. Dr. Rauch, Secretary State Board of Health, Illinois, stated to the Conference on Vital Statistics, which assembled at Washington City, D. C., recently, that they had a law in Illinois, requiring physicians to report deaths, and that there was practically no trouble until the question of fee was raised in one of the County Medical Societies.

In Mississippi, where any one can practice the "healing art," (even if the sum total of his knowledge consists in his having seen at some period of his life, through a powerful

telescope, some of the fly-leaves of an antiquated work on Midwifery,) without paying any privilege tax, I think it would be a reasonable request to ask those engaged in practice to report their deaths and births at least once a month.

It seems to me that until we can have vital records, the results of our work as sanitarians must remain conjectural and indefinite. If it could be demonstrated by actual numbers, so as to adapt it to the unprofessional understanding, that the death rate has been reduced by appropriate sanitary measures, the Health Law would become an indestructable part of the organic laws of the State.

LOWNDES COUNTY.

Report of Dr. B. A. Vaughan, Chief Health Officer.

Mississippi State Board of Health :

GENTLEMEN—Herewith please find report of my actions as Chief Health Officer of the county of Lowndes.

Immediately after my appointment as Health Officer I sent the following communication to the Honorable Board of Supervisors, Lowndes county:

“GENTLEMEN—The State of Mississippi, having by law embarked in the field of Public Health, seeking its protection, I beg through you to present to the whole people of the county the following brief statistical argument, to not only refute the opinion commonly expressed, that old counties like Lowndes need no especial sanitation, but to induce your honorable body and the people to encourage sanitation and its enforcement.

“I beg to call your attention to the fact, that in eleven cities and shires in England, settled and builded thirteen hundred years ago, and who recently entered upon a general system of sanitation, and who have now given to the public the fact that the first eight years of their sanitary experience resulted in the saving of five thousand, two hundred and eighty lives, worth to the country eleven million, six hundred and sixteen thousand dollars.

“The county of Lowndes has had in past years an annual mortality of about 22 per 1000 of population; under a well-executed system of sanitation this mortality would likely be reduced to 12 per 1000, saving to the State and county annually the lives of about 180 people, and their burial expenses of, say, \$4500 annually, together with a greater amount paid for medical attention, medicine and nursing, while the State loses in economic value their labor, amounting to the considerable sum of \$940,000.

“The State hopes, by attention to public health, to free the

people from yellow fever, typhoid fever, typho-malarial fever, diphtheria, scarlet fever, and most epidemics.

"The estimate is a reasonable one, that with assistance by perfect sanitation, Lowndes county would save not only the pain and suffering of sickness to a large number of her people, but would save annually near \$70,000.

"Respectfully submitted,

"B. A. VAUGHAN, M. D.,

"Chief Health Officer Lowndes county.

"Columbus, April, 1880."

To the Honorable Board of Mayor and Aldermen, I at the same time addressed the following open letter, previously prepared:

"The superior natural advantages your city possesses, by reason of locality, have in the past been so beneficial that little legislation on sanitation has been had.

"Situate as is your city at the confluence of the Tombigbee and Luxapalilla rivers, on a range of hills ranging north and south, with one river on the east, the other on the west of the range of hills, with Moore's Creek skirting the north-west side of these hills, the water shed from rain-storms, (assisted as is these natural drains by some city works) may be said to be *generally* complete. Your soil and sub soil are excellent for sanitation, the surface soil being a sparsely formed sand known as 'Tombigbee sand,' with a sub-soil of clay, gravel and blue sand-stone, whose dip leads to the larger stream on the east, give splendid soil drainage, while the sandy plateau reaching the Luxapalilla on the east, keeps measurably drained the clay sub soil of your hills.

Sirs, with these natural advantages, your people have been blessed with more than average health. No epidemic disease has ever scourged you, and for the year just past your mortuary bills show the very low death rate of 9.67 per 1000.

"Still your sanitary condition is far from what it ought to be, and what your honorable body can make it. My relation to your city as a member of the Board of Health, has given me the incentive to study carefully and patiently the sanitation of your city; and to promote its improvement, I address you this letter through the public prints.

"Columbus, forty years ago, attained about the size she now is. In all that period some parts of your city have paid little or no attention to the observance of sanitary rules. With your natural surface and soil drainage, some places are notably saturated with foulness. The construction of your houses in that portion of your city known as the Fire District, is such that the water shed is from both front and rear. From the front the gutter drainage is good; from the rear no provision is made for drainage of either storm or wash-water, but the whole is left to saturate the soil, fill the cellars and saturate the walls of your buildings. Here, too, are your privy-vaults, cess-pools

and other wastes; these have occupied the same sites for a generation—constructed of porous brick, or a mere hole in the ground, the soil must be, and is, alarmingly foul, nor can human skill make such structures sanitarily wholesome. Every such excavation in your city should be filled with dry earth, especially those situate in cellar or court of the squares above referred to.

“With not an underground sewer in the city to assist the drainage of foul soil, the escape by these people has been wonderful. Kitchen waste and garbage are generally neglected. I venture that not a hotel, boarding-house, restaurant or private family house has a well-constructed grease-trap or garbage-bin on their premises, but such waste is trusted entirely to surface drainage or to poison the soil on which it is thrown, if not soon washed by a rain-storm. The situation of hotels, boarding houses and restaurants is generally such that if they poison themselves they also poison their neighbors. I submit that this steady system of poisoning be arrested by proper ordinances.

“That proper improvements may be made, I suggest a house-to-house inspection be had, by a competent person, who knows *what to look for, where to look for it, when he has found what he seeks, and how to remedy it.* This inspection should extend to: in the house, out of the house, kitchen, yard and surroundings, water supply, and especially water-waste.

“Water supply! and water waste! These are grave questions, and to which I have given much thought. Your supply may be said to be sipe wells, with a few artesian wells. I have examined for organic impurities eighteen wells—some on the Bigbee bluff, some on the Luxapalilla plateau, some on the hills. In all the sipe wells I found organic matter. The artesian wells are at times nearly free of organic matter, and at other times foully offensive. The city reservoir, a few days after pumping and before a rainfall, is nearly free from organic matter; on pump days, equal to best artesian well water; just after a heavy rain fall it is foul. With a proper receptacle to pump from, protected from rain-fall and freely used, I regard this water as the best to be obtained. This supply is also a very important factor in your public health, because of its utility in flushing places not reached by rain-storms, and at seasons when rain-storms are seldom.

“Drainage by straitening Moore’s Creek, as well as better engineering in gutter drainage, would be a notable improvement. Better gutter drainage is much needed on the streets north and north-east of the Roman Catholic church, as well as from Mrs. Powell’s well and the springs and artesian well on North Franklin street.

“The purpose of this open letter to your honorable body, is to reach the citizens of your city as well as yourselves, well knowing you must be supported by the public in executing sanitation—for sanitation, if undertaken, must be thorough.

Health laws only know obedience or violation, and with every violation there lurks danger of disease and death.

“ Respectfully,

“ B. A. VAUGHAN, M. D.,

“Chief Health Officer Lowndes County.”

I have examined for purposes of sanitation all places in the county whenever called for, and given suggestions. Inspected school houses, and am glad to report they are generally in good sanitary condition, except in some houses where heating by stoves is had; in all such cases, proper ventilation is not had, and causes much mischief to health. I venture the hope that wise legislation will forbid heating public school houses by stove; the economy, in my opinion cannot be demonstrated, if public health is thrown in the scale.

On May the 15th, I reported a case of small-pox, on plantation $3\frac{1}{2}$ miles from the city of Columbus; isolation and vaccination were practiced; no other case occurred. The source of this case was believed to be a camp of Gypsies.

The rules and regulations promulgated by your Board, could not be executed in this case, as respects destroying personal, and bed clothing of this patient—he being an unprovided negro, who would have been left unclothed, if the rule were enforced. I, in writing, called the attention of the Board of Supervisors to the case, and the rules, and suggested the destroying of the probably infected clothes at the expense of the county, but failed to get their assent. I suggest, public health laws should be framed to compel such protection. The law now requires it, but does not provide for having it done.

We have had some typhoid and typho-malarial fevers, for the first time since 1863. When these cases appeared, I issued a public notice, offering to examine all drinking water sent to my office for organic impurities, free of cost, and in the same notice suggested that impure drinking water was the cause of much of the fevers. Under this notice, I was called to examine water from many localities, and I think good results have flown from suggestions made.

This, with a weekly mortuary report to the National Board of Health, under an ordinance requiring burial permits, obtained through my endeavors, has comprised my principal labors.

MARSHALL COUNTY.

Report of Dr. A. M. West, Chief Health Officer.

To Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Miss.:

In obedience to your directions, I beg leave to make the following report for the year ending October 1st, 1880:

Upon assuming the duties as Chief Health Officer of Marshall County, I wrote and published in the county papers a circular letter addressed to the people, and the physicians most especially, of said county.

I therein placed before them the Health Laws of the State, which prescribed *my duties* as also the penalties for violation of said Laws. I began my operations in the town of Holly Springs by complying with and executing the "Sanitary Rules and Regulations" of the State Board of Health as best I could, and endeavored to have the same "Rules and Regulations" put into operation throughout the county.

In no case reported or coming under my observation have I allowed the laws of Sanitation to be violated by yielding to individual desires and prejudices.

I expect soon to give notice through the papers in accordance with "Rule 3, for prevention of diseases" included in the "Sanitary Rules and Regulations of our State Board of Health" and will endeavor to have said Rule thoroughly and promptly executed. As to the general health of Marshall County for the year ending October 1st, it has been, as far as reported and observed by me, exceptionally good. The town of Holly Springs, during the past summer has experienced an unusual exemption from the different forms of malarial fever. Only one case of a *malignant type* in the town, which died, and five reported from the country, two of whom died. I have reports of 3 cases of malarial hæmaturia, two of whom recovered—no epidemic of it, however, has been reported from any part of the county. No case of cholera, yellow fever, scarlet fever, diphtheria or small-pox has been reported from any portion of the county. The only epidemic of any infectious or contagious diseases reported and observed in this town and county for the year ending October 1st, was that of *measles* during the months of April, May and part of June last. The epidemic prevailed in the town of Holly Springs and in some portions of the county. Outside of the town no reports have been made to me. The disease prevailed very generally throughout the entire town. Nearly every household became infected in the course of the epidemic. There were at the same time several cases of *roseola* reported; but both *diseases* were of a mild type—only *one* death from measles in the town. The fatal case was a child 5 years old, who died of *bronchitis*. The bronchitis, of course, was a complication and sequel of the measles.

The exact number of cases and their dates would be herein given, but the writer of this contracted the disease in the midst of the epidemic and after that time lost the run of the disease; and as there were a good many cases of *roseola* prevailing at the same time, the diagnosis of the *lality* could not be relied upon, especially owing to the mild form of the measles and the consequent resemblance of a good many cases of that disease to *roseola* from the stand-point of the non-professional.

MONROE COUNTY.

Report of Dr. J. M. Greene, Chief Health Officer.

Dr. S. V. D. Hill, President Mississippi State Board of Health :

This County has about 840 square miles, and a population of 29,787. Its soil is diversified with black prairie with limestone substratum, sandy table-lands with clay basis, sandy hills with clay and sandstone substrata, and alluvial creek and river valleys. It is intersected by 4 rivers, one of which is navigable throughout the county, during several months of the year, and connects with the port of Mobile, Ala. These, with a number of creeks from 5 to 15 miles in length, give a considerable area of swamp. Its elevation is from 300 to 800 feet.

Drinking water is supplied by "bored" and "dug" wells and springs, furnishing "hard, soft" and chalybeate waters. In the main the water supply is abundant and pure. The Mobile and Ohio Railroad runs through the western part of the county, sending a branch 9 miles in length to its county site, Aberdeen. This last is the only town or city of importance in the county. It is situated on the Tombigbee river, is about $4\frac{1}{2}$ square miles in extent, and has a population of 2,750. Its altitude varies from 300 to 390 feet. The ground is undulating and broken by valleys and ravines, giving good drainage, which is effected through open sewerage.

Its water supply is excellent. In addition to good wells on private premises, there are seven artesian wells accessible by the public, furnishing good chalybeate water entirely free from organic impurities.

The streets are wide, and margined by shade trees. The dwellings have ample space around them and there is no overcrowding of tenants. The city has three large school buildings with an attendance of 350 to 375 pupils. These buildings are roomy and well ventilated. No epidemic among the pupils has prevailed during the year, and the per centage of sickness has been at a minimum. But one death from their number has been recorded, and it occurred during the holidays, from cerebritis.

One building serves for both county and city prison. The cells afford ample air spaces, and are neatly kept. During the year 257 prisoners have been confined in it for periods varying from days to months, and very little sickness, and no deaths have occurred among them.

All parts of the county are more or less subjected to malaria in seasons propitious to its productions, but only those living in the valleys and swamps suffer to any considerable degree. During last year and this, cases of malarial fevers

have been milder and fewer than the average, and attacks of malarial hematuria have been rare.

During this year whooping cough and measles appeared in some localities, but the latter was quite limited and mild. No scarlet fever nor small-pox has appeared.

Cases of well authenticated diphtheria have been quite rare. Some cases of unmasked typhoid fever have occurred, and typho-malarial fever has prevailed to a considerable extent in some localities, both with but little fatality. In the spring, throughout the county an epidemic of catarrhal dysentery prevailed for several weeks, which, while it affected a large per cent. of the population, was very mild. No deaths from it could be ascertained. It was judged to be dependent on influences, (probably atmospheric) beyond the control of sanitation.

During the autumn a similar epidemic affecting the respiratory passages has obtained, but without serious results. The per centage of pneumonia has been below the average.

With the exceptions above named, no epidemics have been known, and no general sickness has prevailed.

I have made an earnest effort to collect mortuary statistics from the county by appeal direct to physicians in its limits, but without satisfactory results.

This city adopted an ordinance on the 14th of July, 1880, requiring the registration of all births and deaths occurring in its limits, but at the date of this report it has not been fully complied with. The Health Officer has appealed to city authority to enforce its provisions.

NOXUBEE COUNTY.

Report of Dr. H. A. Minor, Chief Health Officer. /

Dr. Wirt Johnston, Secretary State Board of Health.

DEAR SIR:—I am happy, in making this my report for this year, to be able to state that the health of the people of this county has been exceptionally good ; that no epidemic or contagious disease has prevailed in our midst, and that the malarial diseases have in very few instances been of a malignant nature.

I enclose a printed copy of an essay on "The Hygiene of Noxubee County," read by myself at a meeting of our County Society. This embodies my views on this subject. I also enclose a printed copy of an appeal to our physicians to aid me in educating our people up to a plane that would enable them to second our efforts at sanitation, and to lend me their professional influence.

The sanitary condition of the town of Macon is exceptionally good. I enclose a copy of ordinance No. 52. For two or three years I have been Chief Health Officer of the town, and have had the efficient support of the municipal authorities in all my efforts at reform, and can depend on their active co-operation in the future, should necessity demand it.

Your communication of July 1st was received, and I accordingly wrote to the authorities at Brooksville and Shuqualak, but received no reply.

As regards suggestions as to necessary reforms to secure better sanitary conditions, my ideas are expressed in the essay above referred to and enclosed, the essence of which is *compulsatory* drainage, and the making the people amenable to the beat officers for the grosser violations of the laws of health.

I shall be watchful and energetic in the preserving and the conserving of the health of my people, and will promptly report to you should cause arise.

PRENTISS COUNTY.

Report of Dr. W. A. Taylor, Chief Health Officer.

To the Mississippi State Board of Health :

Professional duties and other causes not necessary to mention, have delayed my annual report beyond the time contemplated by your Board. Hoping the delay will not cause any serious disappointment, or inconvenience, I will now proceed to make such statements in regard to the health of Prentiss County since the beginning of the present year as facts, in my judgment, will sustain.

It may be well first to give the outlines of some of the most important features of the topography of the county, as well as that of the only two incorporated towns, viz, Baldwyn and Booneville. The former is situated on the southern line of the county, five miles from its western boundary. The ground upon which the town is built is, in the main, knobby and quite susceptible of thorough drainage. The health of the citizens has usually been good, and, although the village has no organized board of health, there is enough intelligence and public spirit amongst its inhabitants to keep it in a fair sanitary condition.

Booneville, the county site, with a population as reported by the late census, of 448 whites, and 155 blacks, is eleven miles almost northeast of Baldwyn, and situated on a ridge extending through the county east and west dividing the waters which contribute to the formation of the Tombigbee from those

of Yellow Creek, which empty into the Tennessee, and those of Tuscumbia, which find an outlet into Hatchie river. It is hardly necessary to say that the natural advantages of Booneville for drainage are good, and that but little is left for a board of health to do in that direction. The Mobile and Ohio railway runs through both Baldwyn and Booneville, its highest elevation being almost in the center of the latter. With the exception of some artificial ponds made for private use, the town is in a good sanitary condition. These ponds, or pools, containing nothing but stagnant water, except occasionally when flushed by excessive rains, are more or less filthy, and fears have been entertained that they furnished the cause of some cases of continued fever. Be that as it may, it is true that in the course of two or three years there have been several cases in this vicinity while there has been but one in a remote part of the town, and in that instance there were local causes supposed to have produced the fever.

The east half and the extreme western portion of the county are decidedly broken, and pines, interspersed with a variety of other growths, are common, sometimes amounting to forests. In such localities permanent springs of fine stream water abound, and streams that run all the year are not infrequent. Though the country is broken the water courses are serpentine and generally sluggish. The bottoms, owing to the springs and sipes from the hills, or slopes, are generally wet and occasionally marshy until late in the spring. All, except the marshes which remain wet throughout the summer, usually dry out early enough for cultivation. Contiguous to such water course and marshes, malarial fevers are not infrequent during the summer and fall.

Underlying the face of the country along the railroad and immediately west for some distance, and occasionally throughout the county, is a bed of marl varying in thickness from a few feet to two hundred and fifty feet. In such localities it is only where the marl crops out that we have permanent springs, and they are not always freestone. No water obtained from beneath the marl by means of wells is free from lime, and other properties perhaps not found in freestone water, yet so far as experience and observation goes, it is entirely healthy and not disagreeable to the smell or taste after having been used awhile. Wherever the marl exists the water courses usually stop running early in the spring, and the bottoms and low land soon dry up. It is only when there is a great deal of rain that such lands remain too wet for cultivation. Occasionally such localities dry out in the heat of summer, and when that is the case malarial fevers are not uncommon. During the past summer rains were so frequent as to keep such places almost constantly supplied with fresh water, consequently intermittent and remittent or bilious fevers were comparatively scarce.

In the latter part of 1879 whooping cough in rather a mild form made its appearance and soon spread pretty generally

over the county, continuing perhaps six months before it disappeared. It was generally uncomplicated and attended with a small mortality.

In the latter part of the winter and early spring pneumonia prevailed to a greater extent than usual. The disease, however, as a rule, yielded satisfactorily to treatment, there being but a small per cent. of fatal cases.

In April a mild form of dysentery made its appearance and soon became quite common over the county, continuing two or three months. It attacked all ages and conditions, and, though apparently mild, did not always yield readily to treatment.

Throughout the year there have been fewer cases of malarial fever in every part of the county than perhaps for several years past, and, as in the cases already mentioned, the fevers generally presented a mild type and were quite amenable to treatment. I have not known or heard of any cases of malarial hæmaturia, nor have I seen or heard of any fever of the congestive type.

Infantile diarrhœa did not prevail during the summer months to any considerable extent in any portion of the county, and but few children died.

In mid-summer, cholera morbus, especially about Booneville and immediately west of town, was quite common, and some of the cases were very severe. I witnessed several myself with rice-colored discharges, and attended with severe cramps, markedly so in one of the lower extremities. All the cases, however, that came under my observation, yielded to a persistent treatment.

Although there have not been a great many cases, perhaps not more than a few dozen in the county, of typho-malarial fever, yet the number has exceeded that of any year for some time past. This form of fever made its appearance about the first of July, and though apparently mild, the cases were generally protracted through a period of several weeks—all, as far as I am aware, terminating favorably.

September 17, I was called to see, in consultation, six miles west of Booneville, three sisters aged respectively nineteen, sixteen, and thirteen years old. The two oldest, taken about the same time, had been sick ten or fifteen days, the youngest only two or three days. The entire family, numbering eight or ten, occupied the same room, it being badly ventilated. I learned from the parents and attending physician that the fever of these patients had been continuous from the beginning. The symptoms, I thought, warranted the diagnosis of typhoid fever. The two oldest were delirious, tympanitic, and extremely nervous. They had both discharged more or less blood from the bowels, and the youngest of the two had vomited blood from the stomach. Their tongues were red and dry and the lips and teeth covered with sordes, skins dry and somewhat livid. I did not examine carefully for petechæ, the room being

rather dark. The symptoms in the case of the youngest girl had not become grave, and I entertained strong hopes of her recovery if she could be separated from the others, which I intended to have done if possible. Before suggesting such a thing, however, I remarked to the attending physician, that there was some local cause for the fever confronting us, and that we must investigate it. Accordingly we went first to the horse lot, the nearest part of which was distant not more perhaps than twenty yards from the dwelling. In that lot, and not more than forty yards from the residence, was a pool which I learned from the attending doctor had been dug over thirty years ago without having ever been cleaned out. The accumulations of both animal and vegetable matter had filled it to within six inches of the top of the ground. Upon this loathesome mass rested a few buckets of filthy water, which was kept pretty constantly stirred by thirty geese going at large. Between this pool and the dwelling, were the remains of three hog pens which had been used for a number of years. The rails had been taken away, but the ground had never been cleaned off. But a short distance from each, an out-house had rotted down in rank weeds, the ground being kept constantly damp from frequent rains. On the opposite side of the house and about the same distance, was another out house in a like condition. The yard fence, too, except in front of the residence, was in a dilapidated condition in the midst of luxuriant weeds. The ground around the doors was kept wet by frequent rains, and waste water from the house, emitting quite a disagreeable scent, caused, mainly no doubt by the geese already referred to. The water used by the family was from a well situated in the yard in close proximity to the horse lot. Although the water was obtained from below the marl, yet it may have been contaminated by sipes from above.

I will remark that the father of the sick girls was a renter; and that may account in part for apparent carelessness. Aside from the causes enumerated, the location is entirely healthy. Believing the only hope for the sick, and probably the safety of other members of the family depended upon removal and separation; getting the assent of the parents, a couple of neighbors were induced to take the oldest and youngest girls to their houses, every possible precaution being taken to protect their families against danger. Meantime the well children were sent to relatives in the settlement, and the parents moved into a school house in the woods a quarter or a half mile distant, carrying the other daughter with them, who survived but a few days, the oldest dying at the end of a week or ten days. The youngest growing no worse, after removal soon recovered her wonted health. There have been no other cases in the family or neighborhood. Had I failed in getting friends to take a couple of the girls to their houses, I would have insisted on having tents improvised for their use, feeling satisfied that they could not survive where they were.

About the middle of September a young man in Booneville was taken sick with continued fever which last four weeks after he was confined to his bed. He was indisposed and no doubt had fever a week or more before receiving treatment from a physician. In his case the nervous symptoms were very pronounced, and there was a constant tendency to diarrhoea. I regarded this case, too, as being typhoid fever. I was, however, not so well satisfied as to the cause as I was in the cases of the young ladies. The residence is not far from the ponds or pools spoken of elsewhere. It may be that he contracted the disease at a suspicious place in the country where he had been doing some work immediately preceding his attack.

July 26, a gentleman residing in Booneville brought his little three year old daughter to my office to be examined. Finding her throat in an almost putrescent state, and the child otherwise indisposed, I suspected diphtheria or scarlatina and treated her accordingly. Growing worse constantly, the little sufferer died on the 28th, the trachea, and perhaps large bronchi being involved.

The next case, a four year old child, the daughter of a lady living in the country, but who at the time was visiting some friends in town, was first seen by Dr. Price, August 1st. The next day I saw the case with Dr. P., and both believing it to be diphtheria, the child was put on treatment and the mother returned with her to her home in the country. After a few days this case, too, proved fatal.

August 5th, I was called to see a boy eleven and his sister nine years old, the children of parents living in town, and at whose house the lady from the country had been visiting with her little daughter. I will just here remark that these children and others of the family had been seen to kiss the little girl from the country. Regarding the disease as diphtheria, I requested all the physicians of Booneville to visit the house and examine the cases. They did so, and agreeing with me that the disease was diphtheria, I caused the following notice to be published at once in the papers of Booneville: "It is agreed by the physicians of Booneville that diphtheria is in our midst, and, whether its contagious or infectious properties be fully established or not, it is nevertheless advised that there be no unnecessary exposure to the disease." In the course of three or four days a sister, thirteen years of age, was similarly attacked, and soon after another five years old was stricken in the same way. These cases all recovered, and there have been no others in town. There have been a few cases in the vicinity west of town, and perhaps others in different parts of the county, attended with but little fatality. The last death, and the last case, coming to my knowledge, occurred in a little boy seven years old, on the 25th October, four miles southwest of Booneville.

I have made inquiry of physicians living in every part of the county and no contagious or infectious diseases, save those

already mentioned, have been reported to me, nor has there been an epidemic of any kind. The entire county, for the last twelve months has had an immunity from endemic diseases not witnessed for several years. Throughout the year there has been perhaps an unprecedented amount of rain without interval, sufficiently long to dry out localities where malarial diseases usually prevail.

Although I gave notice to physicians and others that I would, whenever called upon, visit any localities in the county and investigate any supposed causes of sickness, no such requests have been made.

In obedience to a request of the State Board of Health, I succeeded in getting a local board of health established in Booneville, with Dr. George S. Ellis as president, of which I gave notice at the time. I visited Baldwyn and urged the importance of having a board organized there, but did not succeed. No one, as far as I am aware, made any objection, but, on the other hand, the mayor and physicians, and some of the citizens, with whom I conversed, seemed to favor it, yet it was not done, from, I presume, sheer neglect, not to say indifference.

I fear it will be difficult to educate our physicians and municipal authorities to realize the importance of keeping a registration of vital and mortuary statistics.

TIPPAH COUNTY.

Report of W. D. Carter, M. D., Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Mississippi:

DEAR SIR: I herewith, according to law and the instructions of your Board, submit for your consideration my report for the past six months. I have instructed the people as to the best means of securing good sanitary regulations, have distributed all rules and regulations of the National and State Boards of Health. I have ordered the drainage of all stagnant pools, and mill ponds, where it has been clearly demonstrated that they have been obnoxious to the health of the people. Drinking water in this county is pure at least. There is not sufficient impurities, except in isolated instances, to produce disease.

Sanitary science in this county is in its infancy, and until there is a change in the medical profession, not much can be expected; think of it, out of thirty physicians at least twenty of that number are irregulars or pretenders. The health of the

county has been good, better than ever known before for the past three years. Our county has been free comparatively of malarial diseases. Recently measles and whooping-cough have become epidemic, the former in a mild form, the latter only proving fatal where complicated by dentition. Diseases of malarial origin have been infrequent this year, at least one hundred per cent. less than ever known before. In the town of Ripley, with a population of nearly one thousand, not a single well-defined case of malarial fever has occurred. In this county, with a population of nearly thirteen thousand, remittent and intermittent fevers and chills have been rare, and then confined to the neighborhoods of mill ponds. The town of Ripley is well situated, a small creek on each side with gullies leading to them, consequently the natural drainage is almost perfect.

TISHOMINGO COUNTY.

Report of Dr. Carroll Kendrick,, Chief Health Officer.

Wirt Johnston, M. D., Secretary State Board of Health :

DEAR DOCTOR: As requested in your letter of instructions, dated April 29th, 1880, I have the honor to make the following report :

1st. I have endeavored to impress on the minds of the people the importance of public hygiene, and also to make known so far as practicable, the Rules adopted by the State Board of Health.

2d. I have tried to have executed as far as practicable, the Rules and Regulations of the Board, and also the Orders relating to quarantine.

3d. I have succeeded I hope in getting the aid and co-operation of almost all the physicians of the county, and also of the Iuka Board of Health.

We have had in the county this year measles, whooping-cough and a few cases of diphtheria; but a majority of the diseases have been malarial I think. This season we have had comparatively little remittent and intermittent fevers; more whooping-cough and measles than we have had before in years. Measles has been of a very mild form all the time. Have not had so much pneumonitis, pleuritis, bronchitis, etc., as we had last year.

I have no suggestions to make regarding the health of the county—except to state that there is a manifest disposition on the part of some parties to ignore the Rules and Orders of the State Board as well as the Health Officer—especially when they

relate to quarantine. Some are opposed to the office of County Health Officer, to executing Rules relating to quarantine, etc., solely on the account of expense. All this will I hope be overcome in time.

Tishomingo county being in the main healthy and somewhat thinly settled, there is not a great deal required of me.

The Iuka Board of Health are doing good service there. This should have been written sooner, but I was mistaken in the time.

YALOBUSHA COUNTY.

Report of Dr. Harris A. Gant, Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Miss.

SIR:--Upon receiving my appointment as Chief Health Officer, I issued to the citizens and corporate authorities of the county the following circular letter:

CIRCULAR OF THE HEALTH OFFICER OF YALOBUSHA COUNTY. }
 WATER VALLEY, MISS., May 20, 1880. }

At the last session of the Legislature an act was passed providing for the appointment by the Governor, of a Health Officer in each county, whose duties are set forth in section 9 of the Public Health Law of the State, to which the attention of all concerned in the health of our county is hereby especially directed.

SEC. 9. Be it further enacted, That in all cases where such county health officer may make a report of any matter in his county calculated in his opinion to produce or to aggravate or cause the spread of any epidemic, endemic or contagious disease, or in any way injuriously affect public health, the State Board of Health may declare the same a nuisance, and upon the request of said Board, it shall be the duty of the District Attorney of that district to immediately commence proceedings by an information, in the name of the State, in the Circuit Court of the county, to have the same abated as a nuisance, and if in the opinion of the State Board of Health, the same is urgent, said Board shall so state in its request to the District Attorney, and also in a communication to the Judge of the Circuit Court of the district, who may try the information on five days notice to the parties interested, in vacation, and may suppress the same as a nuisance, allowing a writ of error, as if the case had been tried in term time, but there shall be no supercedeas, unless the judge in vacation, or the court shall expressly allow the same by special order, and no supercedeas

shall be granted where the public health, in the opinion of the court or Judge, would thereby be injuriously affected.

As the sickly season is approaching, the physicians of Yalobusha county, and the corporate authorities of the different towns in the county, are respectfully requested to co-operate with me in protecting the Public Health. They are hereby requested to inform me, without delay, of any case of infectious or contagious disease, or of any disease of an unusually dangerous or malignant character, that may occur in their practice. They will also please inform me of the existence of any local cause calculated to breed disease in their locality, that steps may be taken to remove it. Physicians are also requested to keep notes of the diseases prevalent in their locality, at different seasons of the year, the malignancy or mildness of said diseases and the number of deaths, so that the diseases may be compared with those of former and subsequent years.

The attention of the corporate authorities of every town in the county, especially of Oakland, Coffeeville and Water Valley, is hereby directed to the importance of establishing a board of health, and adopting such sanitary measures as will prevent the introduction and spread of contagious and infectious diseases in accordance with section 11, Public Health Law.

SEC. 11. Be it further enacted that all incorporated towns in this State shall have the power to pass sanitary laws, and to create Boards of Health, and to suppress as nuisances anything that is dangerous to public health, with full powers of enforcing ordinances for registration and mortuary statistics; Provided, the same are not inconsistent with the rules and regulations of the State Board of Health, and the constitution and laws of the State.

The citizens generally are hereby earnestly urged to keep their premises clean and to use disinfectants and deodorants and to observe the sanitary regulations that have been adopted and distributed by the State Board of Health.

Respectfully,

H. A. GANT, Health Officer,
Yalobusha County.

The suggestions contained in above letter have in some instances been acted upon. The board of Mayor and Aldermen of Water Valley have co-operated with me in causing to be abated many nuisances, and in passing and enforcing such measures as in our opinion would best protect the health of the community. The citizens, too, have reported to me many matters calculated to affect deleteriously the public health which have received proper attention. From physicians in different parts of the county I have so far failed to secure that co operation in keeping notes of prevailing diseases and records of deaths, which would be necessary for me to make out a

complete report. None of the corporate authorities of this county require a burial permit, and no vital statistics or mortuary reports are kept. Often when requesting reports from physicians I am asked whether I furnish blanks for the reports. Could the proper blank forms be furnished to physicians and corporations, I think we might reasonably expect a full co-operation.

The health of the county for the present year has been exceptionally good. The oldest physicians say they have never known a healthier year. The diseases common to this climate have prevailed in a mild form. In the southern and western portion of the county the malarial fevers have been attended with congestion of severe type, in about the usual number of cases; in other portions of the county, very little congestion has been reported. During the months of February, March and April we had quite an epidemic of measles and roseola of mild type. We have had no scarlet fever or diphtheria, but there have been more cases of tonsillitis than usual. In this portion of the county we have not had more than half as much pneumonia as we had during the winter of 1878-'79, while in Coffeerville and vicinity, according to reports furnished me by Dr. T. J. Crofford, the number of cases this year have been $6\frac{2}{3}$ per cent. greater than in 1879. He also reports a slight increase in the number of cases of dysentery and a large decrease in the number of cases of typhoid fever and congestion. Dr. J. M. McFarland, of this place, has had one imported case of dengue.

There have been no marked peculiarities in the diseases of this year, except the prevalence of a larger number of cases of tonsillitis. We have had no indications of yellow fever.

I am glad to be able to report the county in a good sanitary condition. The citizens seem to be awakening to the necessity of reform in this particular. Our town is naturally drained by a creek that circulates throughout its entire limits, so that very little artificial sewerage is necessary. There have been several hundred feet laid in our streets this year; and in addition to this I would call your attention to the subjoined report of Mr. J. F. White, Master Mechanic of the R. R. shops, upon the sanitary improvements that have been made in and about the shops:

“WATER VALLEY, Miss., October 27, 1880.

“*Dr. H. A. Gant, Health Officer, Yalobusha County :*

“DEAR SIR—Below I give you a statement of improvements about shops and grounds, looking to the sanitary improvement of our property under my charge:

“1st. I have removed all the old wooden floors in the car shops, which were laid on the ground, and have substituted lime, cement and cinders, which is equal to stone or concrete.

“2nd. I am having all the old floor removed in the machine

shops, which was laid on the ground, and replacing with wood two feet from the earth, allowing room for air to circulate between floor and ground.

"3rd. I have erected a good bath-house, for cleanliness of employes, which has been freely patronized by all.

"4th. I have had two coats of whitewash put on inside of shop, including roof of building.

"5th. I have had some twenty-five hundred feet of sewerage pipe and boxing laid so as to drain all places where water or filth would accumulate, and have had all low places filled up with cinders and iron shavings, etc.

"6th. I have had all the old privies torn down and new ones erected over the stream, so that all excrements would be carried away by the water. During the summer months once a week I had all privies, urine sinks, etc., limed down well. I am having the curbing torn out of all the wells and will have brick laid in cement substituted. I am careful to have all sewer pipes blown out with steam, to prevent any accumulation of filth that would tend to generate disease.

"It shall be my endeavor, while I remain in charge, to try to obviate as far as I can, all causes to produce sickness and suffering. This I believe can be accomplished to a very great extent by keeping everything neat and in order.

"Yours, truly,

"J. F. WHITE,

"M. M., C., St. L. & N. O. R. R. Shops."

It is proper to state that Mr. White is fully alive to the necessity of keeping the shops and grounds in good sanitary condition, and I can testify that they are now cleaner, better drained and more freely ventilated than ever before. There are about 235 men daily employed here, and the health is better than I ever knew it before.

The public buildings of our town are generally well ventilated, and the means of escape in case of fire are all-sufficient.

YAZOO COUNTY.

Report of Dr. R. L. Dunn, Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health :

DEAR SIR—During the past year, to October 1st, 1880, I would report the health of Yazoo county better than for eight or ten years previous. We have had no violent forms of epidemic disease. During Spring we had considerable complaint from derangements of the digestive organs, generally mild forms of diarrhœa and dysentery. In no case did I meet with a fatal termination. In summer our malarial fevers have been of a mild type. Have seen only a few cases of a typho-ma-

larial type, which have all recovered. We have had no fever which could be deemed suspicious, or liable to be confounded with yellow fever. During August and September, in Yazoo City, there were about five cases of diphtheria, two fatal, the others recovering.

The sanitary condition of our city is better than at any previous time, and has been kept so throughout the whole year.

WARREN COUNTY.

Report of Dr. W. T. Balfour, Chief Health Officer.

To the Mississippi State Board of Health :

GENTLEMEN:—I herewith submit my report as Health Officer of Warren County for the six months ending September 30th, 1880. The office being a new one, and unacquainted with its duties, it took me some time to become familiar with the requirements under the amended charter. Very little has transpired in this county requiring the interference of the Health Officer. The health of the county has been good, so far as I could learn from the physicians. Malarial fevers have been numerous in August and September. On July 5th I reported the prevalence of whooping cough and meningitis in the city. The former almost assumed the proportions of an epidemic, but there have been only four deaths, all colored, to date, and I think it has entirely disappeared. Meningitis existed to a considerable extent during the spring and summer. To date there have been eight deaths from this disease, seven white and one colored. I know of none at present in the city. There have been four deaths in the city from typhoid fever, three white and one colored, two of the white dying in the hospital and were transients. There has been one death from this cause in the county, just beyond the city limits. Deaths from malarial fever—white twelve, and colored ten, four white dying in the hospital. This number does not include the deaths from congestion of the different internal organs, as the certificate of death does not state they were malarial, though it is presumable that some of them were. Consumption has carried off twenty-nine, thirteen white and sixteen colored, six white and two colored dying in the hospital.

On June 29th one of our physicians was called to see some white children in the city. He thought they had measles, as there was measles in the neighborhood, and they had some of the symptoms of that disease. The two cases had very nearly the same symptoms, except one had a general eruption, and the other had none at all. He was struck by the peculiar red-

ness of the skin and its resemblance to scarlatina. He had another case, a mulatto child, affected similarly, in a different part of the town, at the same time, which he pronounced measles, and the case recovered. The first cases were up with in two weeks, the one having the eruption desquamating, but still very feeble. The attending physician thinks they were cases of measles, and if it was scarlatina, he has no idea how it was contracted. Early in August, the attending physician having left the city, another physician was called in to see the child which had had the eruption, and he says that it was then suffering from a very severe ulcerated sore throat, glands enlarged externally, and he believes it was from the eruption which it had had a short time before, which, judging from the history and its condition then, was scarlatina. The child, aged 5 years and 6 months, died on August 20th. No other such cases have appeared.

For the six months ending September 30th there have been two hundred deaths in the city; twenty-eight of these have died in the city hospital, twenty-two white and six colored, leaving 172 in the city, eighty-seven white and eighty five colored. I have no means of ascertaining the deaths in the county, either as to the number, or the causes, but believe they have been no more than usual, or from any than the ordinary diseases.

On July 6th I reported to the Secretary of the State Board that I had applied to the supervisors of Warren County to appoint an officer to enforce the landing of steamboats to be inspected at the National Board of Health inspection station below this city, and this they declined to do, agreeing to empower the officer with the necessary authority, but would consent to pay nothing toward the expenses attached thereto, they thinking the city should pay all of the expense.

July 13th I was shown a telegram from Yazoo City stating that there was yellow fever in New Orleans. I telegraphed to Dr. Joseph Jones, President of the Louisiana State Board of Health, at once if such was a fact, but received no reply. On the 14th I received a letter from the Secretary of the Mississippi State Board stating that he had advices from New Orleans to the effect that a case of yellow fever had died there on the Saturday night or Sunday morning preceding, contracted aboard the bark Excelsior from Rio de Janeiro. This bark was then at the wharf in New Orleans laden with coffee, but was returned to the quarantine station, and no more cases were developed in New Orleans of which I heard.

On July 20th I left home for my health, after having obtained permission so to do from the Secretary of the State Board, Dr. Robbins having kindly consented to act in my place during my absence, and to inform me promptly should there be any necessity of my return.

August 28th, five cases of suspicious sickness were discovered on the tow-boat Raven, from New Orleans, at the inspection

station below the city. Considerable excitement was created, but the sickness being pronounced malarial, all was soon quiet.

On September 5th I returned home and reported for duty to the Secretary of the State Board. At this date the city was healthy, and unusually free from the summer forms of malarial fevers. In consequence of the unfavorable weather, much sickness has been expected, but so far we have escaped, and I think it is due to the fact that the winds have prevailed from the east, something remarkable for this season of the year. Generally about this time of the year the winds are mostly from the west, or north or northwest, and blow through swamps in these directions from the city, and their effect is soon observed in the increased malarial fevers.

September 20th I presented to the city council a recommendation that they request the continuance of the National Board of Health inspection station below this city till October 15th, the same having been ordered suspended on September 30th, provided the city authorities had no objections. The recommendation was approved, and I was instructed to address a communication to Dr. R. W. Mitchell at Memphis, a member of the National Board of Health, requesting such continuance, as by so doing this community would feel much more secure. September 24th I wrote to Dr. Mitchell to the above effect, and received an answer on the 27th, in which he stated that he had issued orders to the inspecting officers at the stations at New Orleans and below this city to continue till October 15th. Suspicious sickness is reported to exist about seventy-five miles below New Orleans, and was pronounced yellow fever. A commission of physicians sent from New Orleans to investigate and report, announce that it is malarial, or rice fever, caused by the exposure in the rice fields.

Many more cases of malarial fever have been reported within the last week, with a tendency to congestion, principally the brain. The weather is again very wet, with warm sun, when clear, and cool nights. In the latter part of August there was quite a change in the temperature, which in the first week in September was as low as 51° at one time.

On September 24th a case of diphtheria was reported in the city—a white infant. The child has recovered; another sick, the nature of the disease disputed.

Having now finished my report, I feel constrained to report and call your attention to matters which I consider of great importance, and if there is no existing laws to meet these cases, that you will take the necessary steps to have them enacted at the next session of the Legislature.

Opium eating has become of late a fearful habit among our people. Not only those who are afflicted with painful and chronic diseases, and use opium for their relief, but, in too many cases, young men and women have acquired this loathsome habit from no cause whatever. It is the general opinion that this habit is confined to the first-named class, and to lewd

women, and to men of loose morals, but the facts are otherwise. Many refined ladies and gentlemen are confirmed opium-eaters, though very few, even of their friends, are aware of their disgusting practices. Having been convinced for some time that the use of opium was on the increase, I requested one of our drug stores to keep a memorandum of the quantity of opium sold to private consumers. For five days the quantity of morphine sold in this way amounted to 346 grains, ranging from five grains to one drachm. This is the quantity sold by only one house, and as there are six, it is fair to presume they all sold more or less, which assumes enormous proportions.

Many take chloral as others do opium, and I know one young man who takes half-ounce doses of chloroform when he can procure it.

Some law should be enacted, with a heavy penalty for violation, against the indiscriminate sale of medicines of this class.

Another matter of great importance, is the increased number of cases of venereal diseases amongst our young men and youths. Many of them cannot be called youths, for they are only twelve and fourteen years of age. I have been told by physicians that they have been struck lately by the youthfulness of such cases, and their increase over those of maturer years.

A subject that was under consideration at the late session of the Mississippi State Medical Association, in this city, I hope soon to see a law, viz: the holding of a certificate from an Examining Board before permission is granted to practice medicine in any of its branches in this State. I see a necessity for such a law every day, to rid our State of the quacks and charlatans who fledge our people, and in many instances destroy their lives.

JACKSON COUNTY.

Report of the Quarantine at Pascagoula.

To the State Board of Health, Jackson, Miss.:

DR. WIRT JOHNSTON, SECRETARY: The Board of Health for Jackson county, appointed by the Governor according to the provisions of the supplementary act of the Legislature, approved Feb. 28, 1880, would respectfully make the following report of its operations for the epidemic season of 1880.

Quarantine was commenced on May 15th and continued until Nov. 1st.

During this time forty-one vessels arrived in the port of Pascagoula from various ports in Mexico, Nicaragua, Brazil, Islands of Trinidad, Martinique, St. Thomas, Cuba, United

States and Europe, as per monthly reports forwarded the Secretary. This does not include vessels from New Orleans and Mobile, which are numerous, and when there is an epidemic in either of those places the number of arrivals is much greater, and consequently entails more labor and expense in enforcing quarantine.

No vessels known to be infected have entered the port this season, though a number of them have sailed from infected localities. It has, however, been the constant care of the Board to take necessary precaution to guard against any contingency; accordingly all vessels from infected places or suspected of it, have been quarantined ten days, and disinfected according to the plans adopted by the National Board.

We have had little or no difficulty in enforcing Quarantine Rules and Regulations this year, as those who have been opposed to it have either become more favorably disposed toward it, or have concluded that it is a fixture and will be enforced.

The Board would call your attention to the fact that excepting New Orleans, no port on the Gulf Coast is more exposed to foreign infection than Pascagoula, as more vessels enter here from infected localities than any other port.

Accompanying this is the report of the Secretary and Treasurer of this Board, from which it will be seen that the expenses of the Board have been \$1097 69, all of which is properly accounted for by that officer. This, it is believed, is the smallest amount necessary to enforce a proper quarantine, as every care has been taken to curtail and keep down expenses, which would necessarily increase during a season of epidemic in this county.

Through the assistance of the National Board of Health we have been enabled to erect and furnish commodious and comfortable quarters at our quarantine station on Round Island, so that we are prepared to take care of the sick.

In this connection it is but just to say that the National Board has, so far as we have had anything to do with it, acted wisely, discreetly and entirely within the spirit and meaning of the law creating it, and that its operations at Ship Island and vicinity have been of great service to Mississippi.

These observations have been prompted by the fact that in certain quarters strong objections have been urged against the Board, seemingly to bring it into disrepute and thereby procure its discontinuance. This we deeply regret, as we believe it has already rendered good service to the country, if in nothing else, by crushing out the odious custom existing in some places heretofore of suppressing a knowledge of the existence of yellow fever, to the great danger of healthy localities.

Respectfully submitted,

E. F. GRIFFIN, President.

H. L. HOWZE,

H. KREBS,

J. B. DELMAS,

M. M. EVANS.

SUPPLEMENTAL REPORT.

Moss Point Miss., January 1st, 1881.

To the Honorable State Board of Health, Jackson, Mississippi :

Since writing the above report, there arrived in this port, on Nov. 22d, 1880, the British Brig Alruna, Captain Mitchell, from Havana, with yellow fever infection on board, two cases having occurred on the voyage, one of which terminated fatally. The vessel was placed in quarantine and thoroughly disinfected. The weather being quite cold and no other cases having occurred on board, she was discharged after eight days' detention.

Respectfully submitted,

E. F. GRIFFIN, President.

Attest : M. M. EVANS, Secretary.

Regulations Governing Quarantine at the Port of Pascagoula.

SECTION 1. The quarantine station shall be situated south of Round Island, and all vessels subject to quarantine shall anchor south of said Island and as near thereto as the depth of the water will permit. The quarantine ground shall be bounded by a line running due south from the east end of Round Island three (3) miles, thence west to a line running south from the west end of said Island, thence north to the Island, and the south side of the Island shall be the north boundary.

SEC. 2. All vessels coming from south of the 25th deg. of north latitude, and vessels with sickness on board, shall anchor at the above named anchorage and there remain until relieved by the quarantine physician. It shall be the duty of pilots to anchor all vessels in accordance with these regulations and the instructions of the quarantine physician.

SEC. 3. Supplies intended for vessels in quarantine shall be delivered to the quarantine physician or his boatman on the wharf of the boat at the quarantine station, which shall be delivered to the proper vessel by the boatman under the direction of the quarantine physician.

SEC. 4. Whenever it shall be necessary to discharge the ballast from a vessel for the purpose of fumigation, while said vessel is in quarantine, the lighter so taking the ballast from such vessel shall remain in quarantine for the same length of time the vessel from which the ballast is taken is to remain.

SEC. 5. No person on board of any vessel in quarantine shall be allowed to communicate with any person from on board another vessel in quarantine without the written permission of the quarantine physician.

SEC. 6. All infected vessels, or vessels from infected ports, shall be detained in quarantine ten (10) days or longer at the discretion of the Board of Health or the quarantine physician, and shall be fumigated according to the most approved plans, and the cost of fumigation and disinfection, together with a fee of five dollars (\$5) shall be charged against the vessel so disinfected.

SEC. 7. The quarantine physician, during sickness or necessary absence, is empowered to appoint some good and reliable physician to perform the duties of quarantine physician.

SEC. 8. The quarantine physician, in the discharge of his duties shall abstain from using his influence to promote the interest of any merchant, stevedore or any other person having business with the shipping, and shall confine himself to the delivery of letters or orders to captains or persons on shore to whom they may be directed.

SEC. 9. All vessels loading at Ship Island Harbor, or any other place and obtaining their cargoes or stevedores from this port, shall exhibit to the quarantine physician satisfactory evidence of the sanitary condition of the vessel so loading, and of the port from which she came, or otherwise communication shall not be allowed between this port and such vessel.

SEC. 10. All ports or places south of the twenty-fifth (25th) degree of north latitude shall be considered infected unless known to the Board of Health to be healthy.

SEC. 11. No boat shall approach within one-half mile of any vessel coming into Pascagoula Bay until such vessel shall have been visited and discharged from quarantine by the quarantine physician, except authorized pilots, and they only for the purpose of piloting such vessel into port.

SEC. 12. All vessels when discharged from quarantine shall remove at least one mile from the quarantine grounds and as directed by the quarantine physician.

SEC. 13. No captain or person in charge of any vessel in quarantine shall allow any person, boat, or craft, propelled either by steam or otherwise to come alongside or on board his vessel without the written permission of the quarantine physician.

NOTE.—Also see “An Act supplementary to an Act entitled an Act to amend Statutes in regard to Boards of Health,” approved February 28th, 1880.

Report of Dr. L. L. Saunders, who was sent as an
Inspector to New Orleans.

Dr. Wirt Johnston, Secretary Mississippi State Board Health :
DEAR SIR : In compliance with your request of 7th instant,

that I should "proceed at once to New Orleans and make investigation of the reported case of yellow fever of recent date in that city, (and other cases should there be any,) in order that your Board might be correctly and promptly advised as to the necessity of taking any steps by quarantine, or otherwise, for protecting our State from infection," I have the honor to report, that I arrived in New Orleans, at 7:30, A. M., 8th September. Called on Dr. Bemiss, resident member of National Board of Health, 9, A. M., same date, who received me very kindly, and *frankly*, and gave me all the information he had in regard to said reported case, other unusual cases, and the general health of the city—which, with information obtained from other sources, satisfied me that there was no necessity for your Board to take any action at present, and I so reported to you, by letter, on evening of 7th instant; but feeling that my mission was not fully accomplished, and that by further investigation I might obtain *facts* which would be of interest and importance to your Board in the future, if not at present, I remained in New Orleans, and prosecuted my inquiries, the result of which I beg leave to submit in a condensed and summary report without comment.

On the morning of the 9th September, in company with Mr. Elder, of the Auxiliary Sanitary Association, (a most courteous and intelligent gentleman,) I visited the house (No. 409, Liberty St.,) in which Fred. Synger died on the 4th of October; the case recently reported by Louisiana State Board of Health. I found this locality over a mile from commercial centre, or Jackson Depot. From his aunt who nursed him and in whose house he had lived and died, I learned the following facts: Fred. Synger was between 18 and 19 years of age, was born, and had lived in New Orleans, until 12 or 14 months ago, when he removed to McComb City, returning to New Orleans August 28th, *never again* leaving the city limits; was taken with initiatory chill on the evening of October 1st; seen by Dr. Watkins on 2d inst., who attended him during his illness, and had three other physicians to see him, one of whom was Dr. Davidson of State Board of Louisiana. His temperature and pulse I did not learn; had suppression of urine and black vomit twelve or eighteen hours before death. The doctors all agreed that it was yellow fever, and so reported to Board of Health. It may not be amiss to state that Dr. Jones, President of Board of Health, was absent from city at the time, and on his return deprecated the action of the Board, (in reporting the case as yellow fever,) as hasty and improper without the concurrence of the *entire* Board. I was not able, after diligent inquiry, to learn of any possible infection from any suspicious case or infected place or article.

Going back six or seven weeks, there was a child died on 19th of August, at No. 262 Bienville St., attended by Dr. Borde, had suppression of urine and black vomit, reported as

malarial hemorrhagic fever. I called at Dr. Borde's office, but failed to meet with him.

The next and only additional case, I will report, is that of Dr. Howe's, which I consider very important in consequence of its connection with the case of fever down the river, which attracted so much attention as to call for a commission of investigation, selected by Dr. Bemiss. Dr. Howe's case was the child Amorretti, Italian father and Creole mother; age eight and a half years, male. Left Port Michel, some fifty miles down the river from New Orleans, on September 4th, in consequence of four deaths occurring in the house of Giordano, 150 yards distant from house occupied by said Amorretti. Initiatory chill 2 A. M., 5th September; seen by Dr. Howe 10 A. M. same day; temperature in axilla $103\frac{1}{2}$, pulse 192, 4 P. M., temperature $104\frac{1}{2}$, pulse less frequent, temperature remaining from 104 to $104\frac{1}{2}$ and pulse gradually declining to 90 by morning of 7th; had suppression of urine 48 hours after first visit, black vomit 50 hours after first seen; urine not examined by test, conjunctivæ highly injected at first, gradually lessening; no convulsions but great jactitation, and died 10 P. M., 7th September, yellowness of skin very pronounced soon after death.

Dr. Jones, President Board of Health, saw the child's body 12 hours after death, and after having the above clinical history of the case, pronounced it malarial hemorrhagic fever; yet refused to allow it to be carried to city cemetery for burial, where the family had a tomb; also refused to permit the body to be carried back to Port Michel, and ordered the child buried on the premises, which was done.

Dr. Howe said, if he had seen the case in 1878, he would have pronounced it yellow fever. He is a competent and experienced physician, but in this instance and under the circumstances, preferred that Dr. Jones, President Louisiana State Board of Health, should see the case and diagnose it, which he did as above stated; Dr. Howe not giving it a name even to Dr. Jones.

The child above mentioned, had lived all the summer within 150 feet (as before stated) of Giordano's house, in which (4) four deaths had occurred of the *doubtful* fever within a week or ten days before said child left Port Michel, and there were two children sick of same fever at the time. The Amorretti child had been in frequent intercourse with the Giordano children. Giordano owns a lugger and is engaged in fruit trade and general traffic, up and down the river.

After diligent search and inquiry, I am unable to learn of a single suspicious case within the city limits; and taking into consideration the lateness of the season, I can only confirm my first report (7th inst.,) that there is no cause for alarm of our people or any action whatever, of Mississippi State Board of Health; and knowing, however, that with the above *facts* before them, they will act both wisely and discreetly in protecting the *health* and *interest* of the people of our State, at

present and in the *future*. I cannot close this report without expressing my grateful acknowledgment personally, and as the representative of your Board, to Drs. Bemiss and Collins, of National Board, Dr. Deveron, Mr. Fenner, Vice-President, Mr. Henderson, Secretary, and Mr. Elder, member of New Orleans Auxiliary Sanitary Association, and last, though not least, Dr. Joseph Jones, President Louisiana State Board Health, for their courteous treatment and the aid they so kindly and promptly gave me in accomplishing the mission for which you sent me.

Respectfully submitted,

L. L. SAUNDERS, M. D.

1881.

MINUTES—1881.

JACKSON, MISS., April 4th, 1881.

At a meeting of the State Board of Health, beginning this day, there were present: Dr. S. D. V. Hill, President; Drs. Dancy, Phares, Rice, Kittrell, Redwood, Taylor, Kells, Bennett and Johnston.

The minutes of the preceding meeting were read and adopted.

The Executive Committee presented a report.

The consideration of the report, and the Quarantine Rules and Regulations submitted with the report, were made the special order for 8 o'clock P. M.

The Secretary presented his report for December, 1879, and the year 1880, which, on motion, was received and adopted.

The following Committee was appointed, as was requested by the Secretary, to examine his accounts and vouchers: Drs. Kittrell, Redwood and Phares.

On motion of Dr. Taylor the Board adjourned until 3 o'clock P. M.

FIRST DAY—AFTERNOON SESSION.

The Board met at 3 o'clock, the President in the chair.

On motion of Dr. Taylor, Dr. Phares was appointed a committee to invite Dr. R. F. Kedzie, Professor of Chemistry at the State Agricultural and Mechanical College, to act as a correspondent of the Board.

The following resolutions, offered by Dr. Kittrell, were adopted:

Resolved, That the State Board of Health of Mississippi regard it as absolutely essential to the protection of the Valley of the Mississippi from the incursion of epidemic visitations of yellow fever, that there should be cordial co-operation between the National and the State health authorities of the valley States, and that to this end we regard it as vitally important that the State Boards of Health in the Mississippi Valley should invite the National Board to place its inspectors at such points within their respective jurisdictions as, in the judgment of the National Board, the sanitary interests of the public may require, and that these inspectors should be encouraged by the various State health authorities to make the most

thorough investigation of all matters affecting the public health.

Resolved, That a copy of this resolution be forwarded to the President of the National Board of Health and the Presidents of the State Boards of Health of the Mississippi Valley States.

Dr. Peter Fairley was nominated for Chief Health Officer of Rankin County, *vice* Dr. H. C. McLaurin, deceased.

On motion of Dr. Kells the Board adjourned until 8 o'clock P. M.

FIRST DAY—NIGHT SESSION.

The Board met at 8 o'clock, the President in the chair.

The Board proceeded to consider the Quarantine Rules and Regulations submitted by the Executive Committee.

Dr. Dancy moved that the period of detention be changed from fifteen to twenty-one days, which being submitted to a vote was lost.

On motion of Dr. Kittrell the report of the Executive Committee, including the Quarantine Rules and Regulations, was adopted without amendment.

On motion of Dr. Dancy the Board adjourned until tomorrow morning at 9 o'clock.

SECOND DAY.

APRIL 5th, 1881.

The Board met at 9 o'clock A. M., the President in the chair.

The committee appointed to examine the Secretary's accounts and vouchers reported as follows:

To the Mississippi State Board of Health:

The undersigned, a special committee appointed to examine the accounts and vouchers of Dr. Wirt Johnston, Secretary of State Board of Health, would respectfully report that they have discharged the duty assigned them, and that they find the same correct,

Respectfully submitted,

(Signed)

BENJ. F. KITTRELL,
G. E. REDWOOD,
D. L. PHARES.

On motion the report was received and adopted.

The following resolution, offered by Dr. Rice, was adopted:

Resolved, That it is the sense of the Board that when an application is made to any health authority for the removal for the purpose of re-interment of a body dead of yellow fever or smallpox, permission shall not be granted unless the removal be made when the thermometer marks 32 ° Fahrenheit, and two years have elapsed since the original interment, and the body shall be placed in a metallic, metal lined or air-tight coffin and then put in a box and the space between the coffin and box packed with lime or charcoal.

Drs. Kells, Rice and Johnston were reappointed the Executive Committee for the following year, Dr. Johnston being designated chairman.

A ballot being taken, Dr. S. D. V. Hill was re-elected President of the Board for the ensuing year, who in appropriate remarks thanked the Board for the honor conferred.

The Secretary presented a communication from the Secretary of the Jackson County Board of Health asking for assistance to the amount of eight hundred dollars to enable that Board to conduct quarantine at Pascagoula the coming season.

On motion it was decided to furnish the amount or so much thereof as may be necessary; it to be furnished in installments as needed, and that Board to furnish the State Board with statements of its expenditures.

On motion the Board adjourned.

JACKSON, Miss., November 10th, 1881.

The Mississippi State Board of Health met at 10:30 o'clock A. M. There were present: Dr. Hill, President; Drs. Sale, Hyer, Kells, Bennett, Rice, McCormick and Johnston.

The President in a short address stated the objects of the meeting.

The Executive Committee submitted a report which, on motion, was received and adopted.

The Secretary submitted his report, which was received and adopted.

The Secretary requested that a committee be appointed to examine his accounts and vouchers, whereupon the President appointed the following committee: Drs. Bennett and McCormick.

On motion of Dr. Hyer the President was requested to call the attention of the Governor and Legislature to the importance of some legislation in regard to quarantine for the counties of Harrison and Hancock.

On motion of Dr. Hyer the President was also requested to apply to the Legislature to enact a law providing that it shall be the duty of the Professors of Chemistry at the State University at Oxford and at the Agricultural and Mechanical College, on the application of the Executive Committee of the State Board of Health, to make analyses of suspected food and drinking water.

The committee appointed to examine the Secretary's accounts and vouchers reported as follows:

We have examined the accounts of Wirt Johnston, Secretary of the Board, for 1881, and find them correct.

(Signed)

J. W. BENNETT,
P. J. McCORMICK.

On motion the report was received and adopted.

On motion of Dr. Sale the Board adjourned.

REPORT OF EXECUTIVE COMMITTEE.

To the Mississippi State Board of Health:

We have the honor to submit the following report of the work of this Committee from April 1st, 1881, to date:

In June an application was received from the Board of Supervisors of Tunica county, asking for the exemption of that county from the operation of the act approved March 4th, 1880. It was decided to not grant the exemption, as the following letter to the clerk of the Board of Supervisors will show:

JACKSON, Miss., June 15th, 1881.

Mr. J. E. Stone, Chancery Clerk, Austin, Miss.:

DEAR SIR—I have the honor to acknowledge the receipt of the application of the Board of Supervisors of your county for exemption from the operation of an act to amend the Statutes in regard to Boards of Health, approved March 4th, 1880. In reply, I will state that the application has been submitted to the Executive Committee of this Board, and I am directed to say that, in their opinion, they do not possess the power to grant the exemption. Section 12 of the act referred to provides that a Chief Health Officer shall be appointed in each county in the State, but only provides for the exemption of counties "remote from railways, navigable streams and the sea coast, and having a sparse population." Your county being situated on the Mississippi river, it seems is not entitled to exemption under the law.

Very respectfully yours,

WIRT JOHNSTON,

Secretary State Board of Health.

In August a communication was received from Mr. H. C. Marshall, reporting ten cases of diphtheria among the negroes on his plantation, near Bolton, in Hinds county. A pamphlet on the restriction and prevention of the disease was prepared, a copy of which is herewith submitted, and copies were sent to Mr. Marshall and the attending physician, Dr. Alexander, with a letter to each, requesting them to inform us of the progress of the disease. As no report was made by either of them we infer there was no spread of the disease.

On July 23d, a telegram was received from Dr. Balfour, Chief Health Officer of Warren county, stating that the National Board of Health had suspended the quarantine station on the Mississippi river near Vicksburg. Regarding it of great importance for the protection of the State from epidemics from below that the station should be continued until the end of the quarantine season, we at once set to work to induce the National Board to re-establish it, and after some telegraphic correspondence, that Board kindly consented to do so, and it was promptly done. We will add that the chairman of

this committee and Secretary of the Board made a visit to Vicksburg in connection with this matter.

In a letter under date of May 13th, Dr. Balfour, Chief Health Officer of Warren county, reported as a nuisance the slaughter-pen of Messrs. Ehrman & Bros., located just outside the limits of the city of Vicksburg, and asked for instructions in regard thereto. As Dr. Balfour did not state whether or not he had notified the parties to abate the nuisance, and it was thought best to have it abated without litigation if possible, Dr. Balfour was written to, and it was suggested that he would call the attention of the parties to the nuisance and request them to abate it, and it was stated that if they should fail or refuse to do so that we would request the District Attorney to commence the necessary proceedings to have it abated. In another communication, under date of August 19th, Dr. Balfour again reported the slaughter-pen a nuisance, and inclosed a petition signed by thirty citizens, asking that it be abated. Accordingly, on August 24th, we declared the slaughter-pen a nuisance, and expressed the opinion that the necessity for the abatement of the same was urgent. The District Attorney, in the following communication, was advised of our action and requested to commence proceedings to have it abated:

“JACKSON, MISS., August 24th, 1881.

“*Hon. W. F. Fitzgerald, District Attorney, Vicksburg, Miss.:*

“DEAR SIR—In May last, Dr. W. T. Balfour, Chief Health Officer of Warren county, reported to this Board as a nuisance the slaughter-pen of Messrs. Ehrman Bros., located in said county, and stated that the stench arising therefrom is dreadful, and the decomposing animal matter is anything but healthful to those who live in close proximity to it. He also asked, ‘will you notify the District Attorney to have it suppressed as a nuisance, or else advise me what steps to take in the matter?’ Dr. Balfour was advised that it was the opinion of the Executive Committee of this Board, that if the Messrs. Ehrman Bros. would clean their premises, and in the future remove the animal matter before it decomposed, and keep their premises clean, that the nuisance would be abated, and that we would be powerless to compel them to remove the slaughter-pen; we, therefore, thought it would be best to wait and see if they would effectually accomplish the work of purification. Dr. Balfour was also requested to inspect the slaughter-pen, and if the Messrs. Ehrman failed to keep their premises clean, to inform us, so that the necessary steps to abate the nuisance could be taken.

“Within the last few days another communication has been received from Dr. Balfour, in which he says: ‘I send you by mail a petition directed to me as Health Officer, and numerous signed by residents in the neighborhood of Messrs. Ehrman’s slaughter-pen, asking that the same be abated and

discontinued. I have inspected it again to-day, and find it in a very bad condition indeed. My former report on this nuisance would answer equally well at present. Mr. Albert Ehrman promised to have all the offal and refuse removed, which he has failed to do. It is thrown on the ground, and what is not eaten by the hogs and buzzards is left to decompose. Heads, feet, etc., are carried beyond the limits of the slaughter-pen by dogs and buzzards, and create offensive odors. I see no relief but its removal.' The petition referred to has thirty signatures.

"In view of the representations made to them, the Executive Committee of this Board have declared the slaughter-pen of the Messrs. Ehrman a nuisance, and in their opinion the necessity for its abatement is urgent, and they, therefore, respectfully request that you commence proceedings to have the same abated.

"Your attention is invited to Section 9, of 'an Act to amend the Statutes in regard to Boards of Health,' approved March 4th, 1880.

"Very truly yours,

"WIRT JOHNSTON,

"Secretary Mississippi State Board of Health."

Judge Young, of the Circuit Court, was also advised of our action, as is provided by law. The case was tried before Judge Young in vacation, who decided that the slaughter-pen was a nuisance and should be abated.

We will state that the chairman of this Committee and Secretary of the Board was present at the trial, in response to a summons, with the record in the matter.

A communication, under date of August 26th, was received from Messrs. Brown & Archer, of Greenville, inclosing a petition numerously signed by citizens, asking that a certain slaughter-house in the vicinity of that town be abated as a nuisance, and asking that certain parties be prohibited from establishing a slaughter-house. The matter and the petition were referred to Dr. R. S. Toombs, Chief Health Officer of the county, with the following letter:

"JACKSON, Miss., August 30th, 1881.

Dr. R. S. Toombs, Chief Health Officer, Greenville, Miss.:

DEAR SIR:—To-day we received a communication from Messrs. Brown & Archer, of your city, enclosing a petition asking that the slaughter house of C. Moyse, L. Moyse and J. Moyse be abated as a nuisance, and that steps be taken to prevent Jones & Adam from establishing a slaughter-house. We have replied that we are without the authority as the case now stands to take the necessary steps to have the nuisance abated; that it appears from section 9 of our law that our authority would begin in such cases when a report is made by the Chief Health Officer of the county. Please have the kind-

ness to examine into the matter, and should the Messrs. Moyse fail or refuse to abate the nuisance, inform us at once so that the necessary steps may be taken to have it abated.

In regard to Jones & Adam establishing a slaughter house your attention is invited to Rule 12 of the Sanitary Rules and Regulations of this Board. Your attention is also invited to Rule 8 of those Rules.

In sending us the petition first we are of the opinion that Messrs. Brown and Archer were not aware that the law requires that the reports of nuisances should come from Health Officers before we can act.

I am, very truly yours,

WIRT JOHNSTON,

Secretary State Board of Health.

We are of the opinion we could not prevent Jones & Adam from establishing a slaughter-house, but could compel them to conduct it in accordance with our rules. W. J.

On account of the absence of the Health Officer there was some unavoidable delay in this matter, but we are pleased to say that after his return he reported that the nuisance was abated at his instance.

JACKSON COUNTY.

On May 16th the following order was issued to establish quarantine at the Port of Pascagoula:

JACKSON, Miss., May 16th, 1881.

Mr. M. M. Evans, Secretary County Board of Health, Moss Point, Miss.:

DEAR SIR:—It is hereby ordered by the Executive Committee of the Mississippi State Board of Health that quarantine at the Port of Pascagoula, Miss., shall go into effect on the 19th day of May, A. D., 1881, against all places and ports south of the 25th degree of north latitude, and remain in effect until otherwise ordered by this Board; and all vessels arriving at the Port of Pascagoula on or after the above date from such ports or places, except vessels from such ports or places as may be known to the Board of Health of Jackson County to be healthy, shall be subject to the quarantine regulations adopted by the Board of Health of said county relating to such vessels.

Very respectfully yours,

WIRT JOHNSTON,

Secretary Mississippi State Board of Health.

The Jackson County Board having made application for \$400 to assist them to conduct the quarantine at Pascagoula, and the State Board having at its last meeting decided to furnish them \$800 during the year if necessary, we decided to furnish the amount applied for, which was drawn from the Aud-

itor by the Secretary on his certificate, countersigned by the President and approved by the Governor, and sent to them by express on June 17th.

Application having been made for \$300 additional, it was decided to furnish them that amount also, which was sent by express on September 21st.

Receipts for the amounts are in the hands of the Secretary.

The quarantine at the Port of Pascagoula was discontinued on November 1st.

The report of the Jackson County Board of their expenditures for quarantine purposes is herewith submitted.

Respectfully submitted.

WIRT JOHNSON,
ROBERT KELLS,
C. A. RICE,
Executive Committee.

REPORT OF SECRETARY.

To the Mississippi State Board of Health:

GENTLEMEN:—I have the honor to submit my report as Secretary from January 1st, 1881, to date:

Not much of interest has occurred in this office during the year that is not embraced in the report of the Executive Committee.

The name of Dr. P. Fairley, who was nominated by the Board at its last meeting for Chief Health Officer of Rankin County, *vice* Dr. H. C. Laurin, deceased, was sent to the Governor of appointment.

In March Dr. W. T. Balfour, Chief Health Officer of Warren County, made the following report of a case of small-pox in the city of Vicksburg:

On April 28th, the following circular letter was sent to the Chief Health Officers of counties:

OFFICE MISSISSIPPI STATE BOARD OF HEALTH, }
JACKSON, April 28th, 1881. }

To County Health Officers:

As the warm season is approaching it is hoped you will fast use every effort to improve the general sanitary condition of your county, for it is to be remembered that it is our duty to endeavor to prevent other diseases as well as epidemics. It would be well for you to try to secure the co-operation and support of the people so as to enable you to discharge your duties more efficiently.

Your attention is invited to the importance of each incorporated town in your county, organizing a Board of Health, and it is requested that you communicate with the authorities of such towns and endeavor to induce them to organize a Board. If any town should not have the power, under its charter, to enforce Sanitary Rules, Section II of "an Act to amend the Statutes in regard to Boards of Health," approved March 4th, 1880, gives them, according to the opinion of the Attorney-General, full and ample power to enforce any ordinance necessary for the protection of the public health.

Should any Municipal Boards be organized in your county, or if any already exist, please have the kindness to furnish this office with the address of the Presidents.

Should a case of yellow fever or a case suspicious in its character, occur in your county, it is desired that you will *at once* report it to this office by telegraph. Should any other contagious or infectious disease make its appearance, the report may be made by letter.

It is expected that on the 1st of October of each year you will make a written report to this Board, setting forth your actions and giving a general statement of the diseases that have prevailed during the year, and the amount of sickness as compared with former years. It is also desired that you make suggestions in regard to sanitary reforms necessary in your county, and also include in it such other matters relating to your duties as may occur to you.

We also desire a full report of the sanitary condition of your county jail, the diseases that have prevailed therein during the year, with the mortality, and the sanitary reforms that may be necessary.

It is suggested that you keep such notes as will enable you to make the report.

It is also expected that you will, at any time, report any matter of interest.

Copies of the Law, Sanitary Rules and Regulations and Quarantine Rules and Regulations, were sent you last year, and if they have been lost or mislaid others will be sent on application.

The State Board is desirous that the registration of mortuary statistics should be undertaken by the incorporated towns, and an address on the subject has been prepared. Please inform us which towns in your county are incorporated, so that a copy of the address may be sent to the Mayor of each. It is hoped that you will endeavor to induce them to undertake the work.

We will, at all times, be glad to render you such assistance as may be in our power.

Very truly yours,

WIRT JOHNSTON,
Secretary State Board of Health.

VICKSBURG, MISS., March 20th, 1881.

Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Miss.:

I am very sorry to have to report to you in my official capacity the existence of a case of small-pox at the city pest house.

The history of the case is as follows: Porter Flynn, aged 28 years, a native of Louisville, Ky., shipped on the 21st of February from the above named place, on the tow-boat J. Sharp

McDonald, as a deck hand. He states that he was well at the time, and has no idea how he contracted the disease, not being aware of any sickness at his boarding house, and none of such a nature in Louisville. The boat left Louisville on the same day, towing coal to New Orleans. He remained well till two days before reaching the latter place, which was on March 10th. He complained of being indisposed, with pains in his legs and back, but had no fever till the 12th, when he vomited several times. He remained in bed and did not leave the boat while at New Orleans. At this time he was visited by the steward and captain, the former giving him some pills which acted freely on his bowels during the night. On Sunday morning, the 13th, he noticed an eruption on his temples, which spread over his face, neck and hands in a few hours. The fever left him and he thought himself better. On March 15th, between 3 and 4 o'clock P. M., he was put off of the boat at the compress in this city, armed with the captain's certificate as a marine, and was driven to the city hospital, where the marines are treated. He entered the ward, and was immediately left in full possession, as he was a marked man. The attending physician being absent, I was sent for, he having been placed in the pest-house as soon as discovered by the nurse. The pest-house is about one quarter of a mile from the hospital building.

I saw him about 4 P. M. Then he had no fever, but surface of body cold, but insisted that he felt very well. The eruption on his face, neck and hands was vesicular. The remaining parts of his body were covered with the eruption, but not so much advanced. I pronounced his a case of confluent small-pox. A small-pox nurse was hired and proper precautions taken to prevent its spread. To-day at 5 P. M. the attending physician says he is in a dying condition, and cannot live very long. I have ordered vaccine matter, which, when it comes, I will use freely.

W. T. BALFOUR, M. D.,
Health Officer.

Dr. Balfour was written to and some suggestions were made in regard to the prevention of the spread of the disease. I am glad to report that no other case occurred.

In May, Dr. W. B. Sanford, Chief Health officer of Alcorn county, reported that there were many stagnant ponds on the premises of individuals in his county, who being poor were unable to drain them, and stated that there were no public funds available and he could do nothing; if there was any remedy, to inform him how to avail himself of it. In reply it was stated that the State Board had no money at its disposal to pay for the work that would be necessary to drain them; that if they were located in an incorporated town the authorities

of the town could abate the nuisance and pay the expense of the same, and that if the parties should not be willing the State Board might commence proceedings to have the nuisance abated if in his opinion it was necessary.

In May, a communication was received from the President of a Municipal Board of Health, stating that an order had been issued requiring that all privies be cleaned and the contents removed beyond the city limits and buried. He also stated that most of the houses were rented, and asked if the tenants could be compelled to have the work done, or should the property owners be held responsible for the work. He was replied to, that the Attorney-General had been consulted, who gave as his opinion, that either the landlords or tenants could be compelled, by an ordinance of the town government, to have the sanitary work alluded to done, and that it would depend upon the wording of the ordinance as to whose duty it was.

In September Dr. Balfour, Chief Health Officer of Warren County, reported eight or ten cases of diphtheria in the city of Vicksburg, and pamphlets on the restriction and prevention of the disease were sent him. In October other cases of diphtheria, a case of cerebro-spinal meningitis and cases of dengue were reported by him.

In September Dr. Gant, Chief Health Officer of Yalobusha County, reported that a child was brought to Water Valley from Virginia, who after about a week developed a case of scarlet fever, which was followed by another case. Pamphlets on the restriction and prevention of the disease were sent Dr. Gant, and he was requested to report should other cases occur. I am pleased to say no other cases were reported.

A communication was received from the Chief Health Officer of Oktibbeha County, in which he asks: "If a tramp were to make his appearance and take sick with some contagious disease, for instance small-pox, would it be my duty officially to take charge of the case and treat it?" In reply to which it was said: I will state that, in my opinion, it is not the official duty of a Health Officer to treat cases of sickness. His duties relate only to the sanitary matters of his county. If a case of infectious or contagious disease, such as small-pox, should occur, it would be his duty to take the necessary steps to prevent the spread of the disease, such as isolation, etc. Whether he treated it or not would be a matter for him to decide as an individual.

Reports for the year ending September 30th, 1881, have been received from the Health Officers of the following counties:

Adams, Attala, Amite, Alcorn, Bolivar, Benton, Carroll, Claiborne, Copiah, Clarke, Covington, DeSoto, Grenada, Holmes, Jefferson, Leake, Leflore, Lafayette, Lowndes, Lee, Lawrence, Lincoln, Marshall, Monroe, Madison, Newton, Noxubee, Oktibbeha, Panola, Scott, Simpson, Sumner, Tippah, Tishomingo, Warren, Wilkinson, Washington and Yazoo.

In October a communication was received from Dr. S. M. Bemiss, of New Orleans, a member of the National Board of Health, from which the following extract is made. Referring to the Ship Island Refuge Station, this season, he says: "The number of ships arriving there known to be infected, or with reasonable suspicion of infection, is about four; the number from infected ports I cannot state. Some six or more cases of yellow fever have been treated in the hospital. No death has occurred and in no instance infectious sickness appeared on board of a ship after its release, or in any port of destination. This is gratifying work. I can further state that the watering places on the Gulf Coast have been thronged with sojourners during the summer, * * * * *. The only cases of yellow fever which are known to have occurred in the United States, except at this station and other quarantine stations, were about five cases at Key West. I have just returned from a visit of inspection there, and it will interest you to learn that evidences are so strong that the infection was brought there from Havana that there is scarcely room for doubt. The more we learn of yellow fever the stronger the convictions are that the disease is nowhere indigenous in the United States."

We have received the following publications since my last report:

Michigan—Eighth Annual Report State Board of Health.

Massachusetts—Second Annual Report State Board of Health, Lunacy and Charity. Thirty-ninth Registration Report.

Tennessee—First Report State Board of Health.

New Jersey—Fourth Annual Report State Board of Health.

Kentucky—Second and Third Annual Reports State Board of Health.

Rhode Island—Third Annual Report State Board of Health.

Wisconsin—Fifth Annual Report State Board of Health.

New York—First Annual Report State Board of Health.

Report of the State Board of Health on the Nuisances of Hunter's Point.

Pennsylvania—Annual Report of the Health Officer of the city of Philadelphia.

Memphis Sanitation and Quarantine, by Dr. G. B. Thornton, President Board of Health.

Hygiene of Emigrant Ships, by Dr. T. J. Turner, Medical Director, United States Navy.

Respectfully Submitted,

WIRT JOHNSTON,
Secretary.

EXPENSES OF THE BOARD FROM JANUARY, 1881, TO DEC., 1881.

Expenses of members and their per diem:

Meeting on April 4th and 5th, 1881, at Jackson:

B. F. Kittrell \$ 31 00

S. V. D. Hill	36 50
J. M. Taylor.....	41 35
Robert Kells.....	6 00
J. W. Bennett.....	18 40
C. A. Rice.....	25 00
F. W. Dancy.....	34 00
D. L. Phares.....	34 75
Geo. E. Redwood.....	31 00
	\$258 00

MEETING NOVEMBER 10TH, 1881, AT JACKSON.

S. V. D. Hill.....	30 00
E. P. Sale.....	33 60
C. A. Rice.....	17 55
W. F. Hyer.....	31 50
Robert Kells.....	3 00
P. J. McCormick.....	21 80
J. W. Bennett.....	17 40
	\$154 85

STATIONARY AND PRINTING FROM PUBLIC PRINTER.

1881.		
April	27. 175 Circulars to County Health Officers..	\$ 7 00
May	14. $\frac{1}{2}$ ream Letter Heads for President.....	4 00
May	14. 500 No. 6 Envelopes for President (ex. pre-paid).....	4 00
August	10. 500 Pamphlets on Restriction and Prevention of Diphtheria.....	18 00
October	26. 60 Postal Cards to Health Officers	1 60
		\$34 60

We also received from the Secretary of State 1 Seal for the Board..... \$12 50

RECEIPTS AND EXPENDITURES OF SECRETARY FOR POSTAGE,
EXPRESSAGE AND TELEGRAMS FROM JANUARY
1ST, 1881, TO DECEMBER, 1881.

1881.	DR.	
January	26. To amount from Auditor.....	\$ 25 00
November	11. To amount from Auditor.....	15 00
		\$40 00

1881.	CR.	
	By amount due Secretary.....	3 22
January	1. By P. O. Box rent.....	1 56
January	26. By Postage Stamps and Wrappers.....	2 16
April	By P. O. Box rent.....	1 56

April	4.	By Amount paid on telegram sent on	
October	6th, 1880.	(This amount was under-	
		charged by the operator through mistake).....	56
April	29.	By Postage Stamps.....	5 00
June	18.	By amount sent Dr. Hill for postage for	
		his office.....	5 00
July	6.	By P. O. box rent.....	1 50
July	23.	By telegrams sent.....	1 35
July	26.	By telegrams sent.....	2 00
July	29.	By telegrams sent.....	80
September	7.	By telegrams sent.....	45
September	8.	By telegrams received.....	1 00
October	5.	By P. O. box rent.....	1 50
October	5.	Py Postage Stamps and Postal Cards...	3 50
		By Cash on Hand.....	8 90
			\$40 00

Salary of Secretary from January, 1881, to December,
1881.....\$733 330

Amount furnished Jackson County Board of Health under
the provisions of Section 14 of an Act supplementary to an
Act to amend the Statutes in regard to Boards of Health :
1881.

June 17.....	\$400 00
September 21.....	300 00
\$700 00	

REPORTS OF CHIEF HEALTH OFFICERS

OF COUNTIES FOR THE YEAR ENDING SEPTEMBER 30TH, 1881.

ATTALA COUNTY.

Report of Dr. J. M. Lewis, Chief Health Officer.

Dr. S. V. D. Hill, President—and members of the State Board of Health—for the State of Mississippi :

GENTLEMEN: The duties of my office, as Chief Health Officer for this (Attala) county, have been discharged during the past year without much *friction*.

As I informed you in my report for year 1880, the Board of Supervisors, *with my consent*, placed the sick paupers under my care, so that all the paupers sick at the poor-house have to be attended by me.

I have rendered several opinions to the Board of Aldermen of minor import, but one that caused some feeling, to-wit. That bone dust from its character and offensive smell was certainly injurious to the health of the community, and the Board of Aldermen promptly acting on my opinion, prohibited the same from being brought within the city limits. The agent did what he could to overcome this opinion, and defeat the Board, but failed.

The Board of Supervisors, Board of Aldermen and myself are working in harmony, and so far they have carried out any suggestions that I have made.

In reference to the opinion that I rendered in regard to the offensive bone dust, I laid the matter before your Board in a letter to Dr. Wirt Johnston, your Secretary, and the matter was referred by him to the Executive Committee of your Board: In a letter dated February 10th, Dr. Johnston says that in "their (Executive Committee) opinion bone dust possessing the *bad odor* you (I) describe might affect the public health. We, therefore, think your action in protesting against its being stored in your town is wise, etc., etc.

This is a matter that I would like for the State Board to

investigate, for I am satisfied that the agents will try to bring the dust into this and other places in the State this spring. Until your Board speaks out in the matter, I shall continue to protest against its introduction within my town; for, while I am not able to say that the bone dust causes any special kind of sickness, yet I am satisfied that any substance that has such offensive odor emanating from it must be unhealthy. During the year 1880, we had several (16) cases of typhoid fever in this town, something unusual for us. I could not say that the bone dust stored the year before (1879) caused it., as the fever was not confined to any locality, yet I believe it will cause just such a form of fever, especially if kept stored in one place for any length of time.

Certainly our Georgia friends could give us some experience with it, for a friend told me some time since, that he could tell when they were near a railroad depot in Georgia by the offensive bone dust, or perhaps they have used it so much until they are accustomed to the flavor, like the man with a chronic sore-lonesome without it. But I think if I had to inhale the perfume all the time, I would emigrate to some country where the land was so rich that bone dust was not necessary.

I have not seen any action taken by other towns in the State. Perhaps my county is the only one so poor that the lands need fertilizers.

My county has but few paupers; consequently my duties in charge of the poor sick is not heavy. The poor-house is located one (1) mile from the town of Kosciusko in a healthy place; good water, etc.

Our jail is not kept as clean as it should be, but its location is fortunately on a high and dry hill.

BOLIVAR COUNTY.

Report of Dr. J. W. Dulaney, Chief Health Officer.

To the State Board of Health of Mississippi:

I have the honor to submit the following report:

During the month of October, 1880, we had some few cases of dengue—none, so far as I could learn, fatal. Many cases of hemorrhagic malarial fever, quite managable. Also many cases of erysipelas, with no fatal cases.

During the month of November, 1880, malarial diseases continued to prevail, not so extensively as in October but more fatal. Rubeola prevailed quite extensively, which was very fatal among the negroes.

During the month of December, 1880, some hemorrhagic

malarial fever, which was quite fatal. Rubeola over the entire county. Some few cases of pneumonia.

During the month of January, 1881, scarlatina prevailed in northern part of county; not very fatal, and confined to the neighborhood of Concordia, from which it never spread.

During the month of February, 1881, health of county good; some catarrhal fever and malarial fever; a few cases of pneumonia.

During the month of March, 1881, catarrhal and malarial fevers; also, some few cases of pneumonia.

During the month of April, 1881, rubeola quite prevalent and fatal among the negroes.

During the months of May, June, July and August, less sickness than was ever known in this county during these months. Weather was distressingly warm and dry. Some malarial diseases. Many cases of abortion, due to the extreme warm weather.

During the month of September, 1881, there has been six cases of malarial hemorrhagica, with the same number of deaths. Dysentery quite prevalent, and very fatal. Syphilis is very common among the negroes, who attach no importance to it.

I have made diligent inquiry of the physicians of our county, also kept notes, so you have a correct statement of the health of our county for the last twelve months.

CLAIBORNE COUNTY.

Report of Dr. W. D. Redus, Chief Health Officer.

Dr. Wirt Johnston, Jackson, Miss.:

DEAR SIR—Having been absent for four or five weeks, I failed to have my report ready on first of month. I wrote you that our town council had passed an ordinance requiring burial certificates, hence I am able to give you a correct report of the deaths of our town for the past twelve months.

We have a population of 1200, white and black. The number of deaths (twenty-two), as shown in following table, may seem large, but a large number were persons quite old.

Our town has been quite healthy during the past twelve months. Malarial fever to some extent, and summer complaints of children. There was an epidemic of measles in the county during the winter and spring, several having died from complications. Our town, as you will observe, was quite fortunate, losing but one.

I have used my utmost efforts in improving the sanitary

condition of the county, and flatter myself that I have succeeded very well. The privy system is not entirely changed, but I have the dry dirt used when possible.

I failed to mention that there was one case of scarlatina during spring, which was reported at time. It did not spread. The opinion of the physicians of this town is that it has been a remarkably healthy year.

I earnestly hope that the next session of the Legislature will enact more laws for the enforcement of sanitary matters throughout the country.

CARROLL COUNTY.

Report of Dr. G. W. Vassar, Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Miss.

DEAR SIR:—I submit the following report, from Carroll County, comprising the last twelve months: The county, so far as my knowledge extends, is now in good sanitary condition.

During the winter and early spring pneumonia was quite prevalent in several localities, but was generally easily managed. Some few cases assumed a typhoid character with some fatality.

During the spring we had a general epidemic of rotheln, or German measles, which I think was not confined to any special locality.

In the months of June, July and August rubeola prevailed as an epidemic in many portions of the county, but of a mild form and very little fatality. We had in the town of Carrollton about one hundred cases with but a single fatal result.

Bowel diseases during the summer, though prevalent, perhaps less so than usual. Dysentery and dysenteric diarrhoea have by no means been uncommon, and in the very old and young in many instances uncontrollable.

Less fever than usual of all types. I have been informed of several cases of malarial hæmaturia, which were confined to no special season, and most of them proved fatal.

I think I can safely say we have had less sickness during the last twelve months in the county than for several years past.

Our jail is in good sanitary condition, no sickness with the inmates.

I am informed by Dr. Kittrell that it is expected of me to give a full report of the vital and mortuary statistics of the

incorporated towns of the county, but having received no instructions to that effect, I find it impossible to make anything like a correct report, consequently will make none.

COPIAH COUNTY.

Report of Dr. Geo. W. Purnell, Chief Health Officer.

To Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Miss.:

DEAR SIR:—I have the honor to herewith hand you my report as Chief Health Officer of Copiah County for the past year.

At the time of making my last annual report we were having heavy rains, which continued during the entire winter and spring. All of our streams, ponds, lakes and low places were filled with water, but since the latter part of April of the present year, we have had a corresponding drought, which caused the evaporation of the water in nearly all the ponds, lakes and low places where water stood during an ordinary summer's drought. In consequence thereof we have had malarial fevers to a considerable extent all over our county. Dysentery has also prevailed to a considerable extent in many sections, and at Wesson during the spring measles were prevalent, and owing to the crowded condition of the operatives there and from exposure a few deaths occurred. There has also been a considerable tendency to congestion, especially of the brain and bowels.

Also at Wesson there has prevailed during the last six weeks a low form of fever amongst the operatives, principally typhoid in its character, which I have pronounced remittent fever of the typhoid nature. This fever has been styled, erroneously, I think, by some physicians typho-malarial. In the town of Wesson it has been confined almost exclusively to the operatives, although I find it to a more limited extent in many other portions of our county. These operatives live in tenement houses, sometimes as many as four families living in one house, and, of course, are very much overcrowded. The premises, as a general thing, are in a filthy condition. The fever comes on rather insidiously, but soon the patient is prostrated. The ratio of deaths has not been very large, and several have died of hemorrhage of the bowels after having sufficiently recovered to resume work. The disease seems now to be abating, and very few are at present sick. The extent of the fever and its fatality have been erroneously and falsely reported, and I entertain no apprehension of its further prevalence.

I have examined our jail repeatedly and have always found its sanitary condition to be excellent, and the ratio of sickness amongst its occupants is less than among the county people generally.

I have examined drinking water in several localities, and have reported on the same.

Ordinarily the health of our county should be good, with the exception, of course, of some localities exposed to undue malarial poison, and I believe that a large amount of our sickness is caused by imprudence in eating, especially heavy suppers, and neglecting two of the great essentials to health and morality, the free use of pure fresh water and proper ventilation.

But I am thankful to say that the health and sanitary condition of our county, taken on a whole, compared with previous years, are very satisfactory.

COVINGTON COUNTY.

Report of Dr. Alex. Fairley, Chief Health Officer.

DEAR DOCTOR:—In accordance with your request I herewith submit my report. First I will say there are no Municipal Boards or incorporated towns in my county. The only infectious disease that prevailed to any extent here this season was whooping cough. It spread with considerable rapidity among both races, white and colored, but was mild in its character, causing but few deaths. During the months of July and August we had a pretty severe visitation of acute dysentery, which attacked both old and young. The disease, however, yielded readily to proper treatment. After this came intermittent fever and bilious remittent fever of a severe type, requiring for its arrest the persistent use of that great anti-periodic, quinine. So far as I have been able to ascertain there has been but one isolated case of typhoid fever in the county which ended fatally. We have had about the usual number of miscellaneous cases. About the only difference in this season and last was in the number of cases of intermittent and bilious fever, the number of cases being much greater this season than last and much severer. The sanitary condition of the jail is good, it being for the greater part of the year without an occupant.

DESOTO COUNTY.

Report of Dr. J. H. P. Westbrook, Chief Health Officer.

Wirt Johnston, M. D., Secretary State Board of Health :

DEAR SIR:—I was under the impression until I received your note of a recent date, that the 1st of November was the time for the regular report of the State Board of Health, and this oversight or mistake has caused the delay in sending this communication. On the 1st of May we commenced our sanitary operations in Hernando, adopted a rigid system of rules and regulations which have been very generally observed, and by the 1st of June we had everything clean and in a satisfactory sanitary condition. Since that time we have had a regular inspection of the town and suburbs by the city marshal every few weeks, whose duty it was to examine the premises of every person within his prescribed limits, and to see that these rules and regulations were strictly carried out, and the result has been, notwithstanding the intense heat during the past season, the most unprecedented health, within a population of 1,000 persons, town and suburbs. We have had very few cases of sickness of any kind, and but one death among the whites, and that an aged lady, from uræmic poison. We have had but little assistance from the county physicians and people in carrying out our sanitary rules and regulations, and only in a few isolated cases, when the trouble and annoyance were apparent to all, have they paid any attention to the matter. Yet the health of the county has been unusually good, and with the exception of a few isolated cases of measles and whooping cough, they have had nothing, but comparatively a few cases of disease incident to the peculiar locality. During the latter part of the winter and early spring we had some inflammatory disease, pleurisy, pneumonia, rheumatism, but mostly catarrhal forms confined principally to the children. During the summer and fall up to this time we have had some bilious intermittent and remittent fever, and in a few instances a malignant malarial fever, but all attended with little fatality, and the amount of sickness in the county up to this time, has been much less than in any previous season.

To secure attention to the necessary sanitary rules and regulations in the county and in small towns not incorporated, there should be some special legislation, as the interest and importance of the subject will fully justify the legislation necessary to secure a general sanitation that would, no doubt, reduce the amount of disease and its fatality, even in the county, at least 50 per cent. We had to contend with some formidable and prolific causes of disease, both at the courthouse and county jail, but the nuisance in both cases has been

removed, and both places are now in a satisfactory sanitary condition. The health of the inmates of the jail for the last nine months has been good. This year there have been confined in the jail up to this time fifty-five prisoners, and among that number none have died, and only two cases that required medical attention. The Female College is in a good sanitary condition, and has been almost entirely exempt from disease during the past season, having had only three cases of sickness this summer, and only two of them requiring any attention whatever. To improve the general health, the sanitation of the county and small towns must be enforced, by special local authority, as it is impossible to convince the common people of the necessity and importance of observing these simple sanitary rules and regulations, and to make sanitation successful and a blessing to the whole county, its rules and regulations must be strictly observed and carried out by all; then with a pure atmosphere, pure water and plain wholesome food, we would necessarily have no disease, except that produced by accidents, exposures and excesses of various kinds.

JFFFERSON COUNTY.

Report of Dr. N. L. Guice, Chief Health Officer.

To the State Board of Health:

GENTLEMEN—From the date of my last report (October 1st, 1880,) to the first of July of the present year, the health of this county has varied little from the average. Pneumonia was more prevalent during the winter and early spring months than was experienced during same period of last year. The disease was not of virulent type, and the mortality not above the average. No special cause for this increased prevalence of pneumonia could be ascertained, except it might be attributed to the uncommonly severe winter.

There was also an increased number of cases of (severe) acute bronchitis during this period, as well as of mild catarrhal diseases. No deaths reported from such cause.

On May 6th I published an address in the county paper, calling attention to the more important sanitary rules of your Board, and urged that they be observed by people, both in town and country districts. In this address physicians were called upon to co-operate with me in all matters relating to the sanitary interest of the county.

Measles and whooping-cough have prevailed, separately, in some districts of the county, and beyond these I have heard of no epidemic disease. I know of no such disease at this writing in the county.

About July 1st malarial diseases became more prevalent

than for many years past. This excessive prevalence continues up to this writing, though a considerable falling off is noticeable since the middle of September.

Simple intermittent and remittent fevers have been the prevalent type of all the diseases traceable to malaria. Nearly all cases were mild in the inception, and when timely and judicious treatment was resorted to early, the disease yielded promptly and without difficulty. The death rate was apparently not greater than that of average years, when these diseases are less prevalent. Many deaths occurred, but in almost every instance the fatal result was traceable either to total neglect of the victim, partial neglect in the shape of delay of treatment, or to improper treatment. These destructive agencies are to be ranked in the order in which they are mentioned.

Farm laborers and others whose calling entailed exposure to the sun's rays, were the chief sufferers from malarial diseases. The colored population suffered more than the white. This greater suffering is applicable both to the relative number of cases and deaths.

The cause or causes of this great prevalence of malarial diseases could not, in the present state of medical and sanitary science, be removed, and hence it would be folly to go into a discussion of this great question.

During last winter, diphtheria and scarlatina prevailed to a considerable extent in the city of Natchez. This city is distant twenty-six miles by rail from Fayette, but is much nearer the southern border of my county. There is constant intercourse between a large part of the people of this (Jefferson) county and those of Natchez. There was great danger that either diphtheria or scarlatina, or both, would be through this intercourse transplanted into this county. In order to prevent this calamity, I warned the citizens of this county visiting Natchez to make diligent inquiry concerning the location of these diseases in the latter city, and to avoid contact with persons and things from families in which these diseases then prevailed, or had existed during the recent past. In two instances I gave orders prohibiting parties residing in Natchez, and being of families in which scarlatina had prevailed, the privilege of visiting families residing in this county. In one other instance an order was issued warning the parents of a youthful citizen of this county, then on a visit to a family in New Orleans, in which scarlet fever existed, not to permit the return either of the party in question or of the baggage of the same, save under such restrictions as were then given by me.

From personal observation, extending over this county and those immediately adjoining, I am convinced that State legislation is needed, and greatly needed, indeed, to protect all classes of citizens, but more especially the less educated and poorer classes, against the constant and dangerous imposition practiced upon them by travelling and other vendors of quack medicines, and also, legislation giving protection against igno-

rant pretenders and incompetent practitioners of medicine. It is clearly the duty of every State to protect her citizens as much as may be in her power, not only against open and avowed enemies—such as are visible and recognizable by even the least educated and least suspecting person—but it is equally and even more properly her duty to protect them against the lurking and clandestine enemy who for the sake of gain is constantly imposing upon their credulity, and robbing them of their money, by selling them worthless medicines.

The vendor of quack medicines, however, is least harmful of the two classes above referred to. He is usually found traveling from place to place, selling his worthless compounds as “cure-alls,” and usually doing no other injury than is comprehended in the term “robbery” of unsuspecting people. Such business is neither legitimate nor respectable, and the injury thus done the people is of sufficient magnitude to call for repressive legislation.

But of the two classes of enemies to the State, the ignorant pretender and incompetent physician are incomparably the most harmful. It is simply impossible that the great mass of the people should correctly judge of the qualifications of the physician; hence, it necessarily follows that every person claiming to be a physician is employed as such by a number of people more or less great. This is governed by circumstances, as you will readily understand.

The degree of popular confidence obtained by some of these ignorant pretenders, or incompetent physicians, as the case may be, is often astounding to the intelligent physician. Thousands of citizens of this State are to-day employing these ignorant men. The most valuable lives are entrusted with confidence to their care, and hundreds are being thus consigned to premature graves solely for want of a reasonable amount of knowledge and skill on the part of their medical attendant. This is no exaggeration, and the assertion can be substantiated to the satisfaction of any intelligent person.

Will the great State of Mississippi longer tolerate such a deplorable and dangerous condition of affairs, or will she emulate the proud example of Texas, Illinois and other States of the Union, by enacting laws protecting her citizens by requiring that no person shall be permitted to practice medicine or surgery within her borders who does not possess reasonable knowledge and skill in these professions? Such laws would lay open to the people the ignorance and dangerous incompetency of these pretended physicians by compelling them to undergo an examination before a competent medical board. Those failing to pass this examination to the satisfaction of this board would be compelled by study to fit themselves for discharging the important and sacred trust of physician, or to leave the State for her good, in search of patients not protected by law.

It is no hardship, when the life, health, prosperity and hap-

pineness of so many people is involved, that a State should require a reasonable degree of intelligence and skill on the part of those practicing medicine within her borders; but it is indeed a hardship that these blessings should be repeatedly menaced and as constantly destroyed for want of proper legislation.

It is the province, as it is the duty, of your Board, to direct the attention of the Legislature of our State to this lamentable evil. You are fully aware that in my imperfect presentation of the subject no exaggerated picture has been drawn, but that, in truth, the evil is greater and more destructive than could possibly be known to any single individual. In truth, there is not to-day a county in the State which is not to a greater or less extent groaning under this destructive evil.

LAWRENCE COUNTY.

Report of Dr. James A. Rowan, Chief Health Officer.

Wirt Johnston, M. D., Secretary State Board of Health:

DEAR DOCTOR: Having been pressed in my practice, I have delayed making a report as Health Officer of Lawrence county, and I am not now prepared to make as full a report as I would like as I have not heard from all the physicians in the county. However, I will give such information as my limited opportunity will admit of. There has been more sickness in this county during the last twelve months than for several years past, yet the death rate has been comparatively small. From the 1st of October, 1880, until the 1st of May, 1881, there was but little sickness of any character—some little pneumonia, proving fatal however in but few instances.

From the 1st of May until about the 1st of August there was considerable dysentery of a mild type. In some localities pertussus has been quite prevalent, frequently complicated with dysentery or malarial fever, proving fatal in many instances among the negroes, due perhaps to an insufficiency of diet and medical aid. A few cases of measles have occurred, but hardly to the extent to be denominated an epidemic. There has been an unusual amount of fever common to Pearl river bottoms during the latter part of summer and up to the present time, but not of a fatal nature; the few deaths that have occurred from fever was mostly where congestion occurred. The fever rate in the river section I believe would be greatly decreased by a more thorough drainage and the use of cistern water, as the water mostly used in the river bottoms sipes from

the numerous lakes, lagoons, etc. If a fuller report is required by the Honorable Board, let me know the nature of the information required and it will be my pleasure to report more fully.

LEE COUNTY.

Report of Dr. R. C Cunningham, Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health, Jackson, Mississippi:

DEAR SIR: In accordance with instructions from your office, I have the honor to submit my annual report as Health Officer of Lee county, as follows :

1st. Our county has enjoyed unusual exemption from all classes of disease, the most prevalent being those of malarial origin with occasional cases of sporadic typhoid fever.

2d. The sanitary condition of the county has been and is still exceptionally good. A few cellars have been drained and nuisances suppressed by the authorities of incorporated towns. The people have generally yielded a cheerful obedience to the health laws of the State; we have had no epidemics of any kind except one, in the *spring*, of measles, which was a very mild type and did not spread to much extent.

3d. On the 5th of May last I addressed letters to the authorities of all the incorporated towns in the county, advising them to appoint Boards of Health. I received responses from most of them, stating that they had organized such boards and would report the same to the State Board.

4th. About the first of May I procured a quantity of vaccine virus and proceeded to vaccinate quite a number of persons, but found it exceedingly difficult to enlist the people in the business, many seeming averse to the protection unless "small-pox was raging near."

5th. Have visited and examined our county jail and ascertained that the prisoners have generally been healthy, only a few cases of malarial fever being reported; the jail is well kept and prisoners cleanly and well fed.

6th. I am pleased to report, that the people as well as the medical profession have aided me greatly in carrying out such sanitary measures as were needful, and prescribed by law.

7th. In the matter of vital statistics I could not make a definite report; the population of the county is upwards of 20,000; the rate of mortality for the year is very small, while the birth-rate has been quite large for a population situated as ours.

In my opinion some wholesome laws suppressing and punishing quackery would greatly contribute to the public welfare and safety, and elevate the dignity and increase the usefulness of legitimate medicine.

LEFLORE COUNTY.

Report of M. G. Davis, M. D., Chief Health Officer.

Dr. Wirt Johnston, Secretary Mississippi State Board of Health, Jackson, Miss.:

SIR:—In making my health report for our county for the year ending October 1st, 1881, I find no matter of material importance to communicate in regard to sanitary reform or improvement. The health of this county since October, 1880, has been remarkably good. Never known so good for many years. Decidedly better than last year, though that was unusually good. The sanitary condition of our county site is not so good as desired, since I have not been fully able to get the co-operation of the town officers. It has continued healthy, however—so perfectly so that the people can not be easily impressed with the importance of sanitary improvements. The county jail is in fine order in every way, and has been kept so through the entire year. Though it is constantly full of prisoners there has been not one serious case of sickness for many months. The character of diseases prevailing during the preceding year has been about the same as of previous years. None of serious nature, except those of malarial origin, with a moderate amount of pneumonia and dysentery. We have had among us an eruptive disease, which seems to have prevailed in all parts of the State, much resembling rubeola, but has not proved of much importance here. I considered it a form of rubeola, probably *rotheln*, but have met nothing exactly like it before.

LINCOLN COUNTY.

Report of Dr. E. J. Bowen, Chief Health Officer.

Dr. Wirt Johnston, Secretary Mississippi State Board Health, Jackson, Miss.:

DEAR SIR:—In compliance with instructions I herewith

submit the following annual report of the sanitary condition of Lincoln County for the past year:

There has been nothing of unusual interest to report, except an epidemic of measles which occurred last winter and spring of rather mild type, and attended with little fatality.

In the western portion of this county dysentery in epidemic form prevailed to a large extent, attended with considerable mortality, owing, no doubt, to the extreme and protracted heat of the season.

The usual visitation of malarial fever, has been unusually mild throughout the county.

There is now prevailing in our city an epidemic of dengue fever of unusual severity, but so far unattended with any fatality.

Typhoid fever has prevailed to a limited extent and of mild type. The amount of sickness as compared with former years is considerably less.

LOWNDES COUNTY.

Report of Dr. B. A. Vaughan Chief Health Officer.

To the Mississippi State Board of Health :

GENTLEMEN:—The undersigned "Chief Health Officer" for the County of Lowndes, in compliance with law, has the honor to submit his annual report.

That progress in sanitary matters is slowly being appreciated by the citizens of Lowndes County; but the "Health Officers" functions are thought to be valuable to them, chiefly in an epidemic of some dangerous disease, or on the prevalence of some dangerous malady.

In the early spring I gave through the local press an official notification to the people of the county, that I would examine all water that was used for drinking and culinary purposes that might be brought to my office. Since such notification I have been rarely without water to examine, and I am confident that the health of many of the people has been protected and benefited through this service, as much of the sipe well water was found to be foul with organic matters.

The general health of the county for the year has been good, except at one locality near Mayhew, regarding which I shall report specially, and to which I invite considerate attention from the Board.

I regret my inability to give a report on vital statistics from the whole county. The city of Columbus is the only place in the county that I have been able to influence to adopt the policy of

requiring "burial permits." Crawfordville and Artesia, incorporated towns, have made promises, as yet not complied with.

The mortuary report for the year 1881, to the (first half) is presented as valuable statistics, the requirement of "burial permits being rigidly enforced.

The population of Columbus, according to United States census, is 5,519. The semi-annual deaths, up to August 1st last, were as follows:

White Adult Males.....	1	Black Adult Males.....	2
Females	4	Females	8
Total.....	5	Total.....	10

UNDER FIVE YEARS OF AGE.

White Males.....	5	Black Males.....	8
White Females.....	0	Black Females.....	8
Total.....	5	Total.....	16

RECAPITULATION.

Adult Males.....	3	Adult Females.....	11
Minor Males.....	13	Minor Females..	8
Total Male.....	16	Total Female.....	19

AGES.

Under one year of age.....	18
From one to five years of age.....	3
Erom five to eighty-eight years of age.....	14
Total of all ages.....	35

CAUSES OF DEATH.

White Adult Males.		Black Adult Males.	
Pneumonia.....	1	Alcoholism.....	1
		Tuberculosis	1
White Adult Females.		Black Adult Females.	
Typhoid fever.....	1	Pneumonia Notha.....	1
Age and debility.....	1	Not known.....	1
Age and pneumonia.....	1	Phthisis pul.....	3
Cholera Infantum.....	1	Pneumonia.....	1
		Epilepsy.....	1
		Congestion of the bowels...	1

UNDER FIVE YEARS OF AGE.

White Males.		Black Males.	
Fever remittent.....	1	Whooping cough.....	6
Whooping cough.....	2	Pneumonia.....	2
Cholera Infantum.....	1		
Convulsions.....	1	Females.	
		Whcoping cough.....	6
		Diarrhœa	1
		Convulsions.....	1

Whole total from all causes.....35

Per cent. per 1,000.....\$13 05

It will be observed that whooping cough among the indigent blacks was a prominent factor in the death rate.

"Rotheln" prevailed extensively in the adjoining counties, and was introduced into this county in the late spring. Previous to its introduction I had as Chief Health Officer given public notice of its prevalence with our neighbors, and warned the people that safety was to be found by isolation. It was introduced from Oxford, through the presiding elder of the colored Methodist Church. At my instance the city authorities forced isolation by quarantine. The malady was again introduced into the city through another channel. Quarantine was then abandoned at my suggestion and "dangerous disease signals" used instead. This was associated with an explanatory proclamation by the Mayor. The disease was arrested in the household of the fourth family, each of the invaded households having been thoroughly purified by disinfection and burning.

I am pleased at being able to report that sanitary drainage, as suggested by the "Health Officer" is receiving more earnest attention. Household and kitchen wastes I regret to report are still carelessly disposed of, despite the oft repeated and earnest endeavor of the "Health Officer," to inaugurate a more sanitary procedure. In the city of Columbus even, I have not been able to have rules Nos. one and two of State Board of Health complied with.

Your careful attention and consideration is invited to the following facts: On the plantation of J. O. Banks, near Mayhew, in this county, there occurred this spring an outbreak of typhoid fever, resulting in fourteen deaths. They were all colored people, and so under the influence of colored "voodoo" doctors, that they declined the services of Dr. Ryland, physician of that neighborhood, nor could they be influenced by the proprietor, manager, Dr. Ryland or Health Officer.

They had been assured by their "voodoo" doctors, who were also their spiritual guides, that they were all "tricked," and they alone were able to dissolve the spell. Fourteen lives were the sacrifice to this superstition. A close sanitary inspection of the premises, and a fortunate suggestion as to the water being the real cause of the fever, was seized upon by one of the colored servants, and upon his announcement that their enemies were "tricking" them through their water, the wells were cleaned and a guard placed over them to prevent further pollution. The fever afterward claimed no new victims, and death on that plantation was stayed. This is by no means an isolated case, but is selected because of the immense consequences. These colored so-called doctors are in every town and neighborhood in the county, and doubtless in the State. Here the death rate among their race steadily increases,

"still borns" alarmingly so, all of which I am afraid is not separated from criminal intent.

I regret to report that charlatanism is not in this county confined to the colored race. A notable instance came under my own knowledge: A young man, who had read medicine for a few months, went to Louisville, Ky., to attend lectures last year. He was absent some months when he returned with a diploma in medicine from a Cincinnati faculty, and at once proceeded to the practice of medicine. For the protection of the public health I do hope the State Board will in its recommendations to the Governor, urge that efficient protective legislation be had in this direction.

Among the duties enumerated in Section 8 of the Article in regard to Boards of Health, is to report on matters regarding public schools and the preservation of the health of pupils. The discharge of this duty is hindered and embarrassed by reason of want of co-operation on the part of School Directors and Trustees. Most of these bodies seem to be jealous of any suggestions as to the management of the public schools, and suggestions from Health Officers are not kindly taken and acted upon. School buildings are constructed not in conformity with well accepted rules of hygiene, but in violation of such rules. A certain and increasing per cent. of the pupils become myopic, from ill-lighted school-rooms, especially in the female departments. Physical education is wholly neglected, and often impeded by the rules of the school, said rules being adopted more for the convenience of teacher than pupils.

The public mind seems to have been directed more to the "hard worked" master than to their pupils; and if the pupil have the misfortune to have a delicate physical organization, the recognition it receives from the masters generally seems to be more in the light of a fault than a misfortune, which a proper physical training might relieve. Hot-house mental culture seems the accepted order of the day, and the future men of the State are expected to need brain only, without a wholesome body, capable of carrying the brain to fruitfulness. I venture to suggest as a remedy to many of the errors of public school life against hygiene, an amendment to the school laws so as to make the Health Officer of the county ex-officio a member of the School Board of Trustees or Directors. To this suggestion I respectfully ask the State Board of Health's consideration when they come to recommendations to the Governor. Public health and public schools are so related, and through such a variety of channels, that it seems almost imperative they should be correlated to get from both the greatest public good. Many of these channels suggest themselves for presentation, but I refrain from burdening the Board with further discussion of a subject which doubtless has received their grave attention.

One other suggestion in the field of recommended legislation I beg to indulge in before closing this report. The State

Board too well realize the labor which is associated with the public health move made by the State, and how little the public appreciate the silent and severe labor undertaken and performed by the sanitarian in the sole interest of public health; but I apprehend they do not know how far away from recognition such labors are from the average Board of County Supervisors. That continuous and ever watchful labor which sees afar off an approaching danger, and prepares for or averts it, is either not recognized or soon forgotten. Such Boards seem to only see the brilliant stroke, or powerful blow, which some startling dangers receive. These opportunities being rare, recognition of labor done meets with such uncertain appreciation that I apprehend that many who are prepared to undertake and accomplish valuable sanitary labors for the State, may ultimately abandon the field, out of self-respect; at least so long as Boards of Supervisors may at each monthly meeting discuss the pecuniary merits of such labors. While I personally am free from such embarrassment, I cannot refrain from saying something in behalf of co-laborers, and venture to suggest to the State Board the feasibility of amending Section 12 of the Statutes so as to make it mandatory upon Boards of Supervisors to pay, by county warrants, as now fixed by law, a fixed salary to the County Health Officer, and suggest that an equitable basis could be reached by allowing one cent per annum for every enumerated inhabitant of the county. To this suggestion I hope favorable consideration will be given by the State Board of Health, and that they will recommend to the Governor some plan which will relieve Health Officers from the uncertain action of Supervisors, and that the salary, be it much or little, shall be definitely fixed—at least for the term of appointment. I make the suggestion with less hesitation, for the reason that I believe that should an incompetent Health Officer be appointed, he would be the sooner removed by Supervisors calling the Governor's attention to their counties suffering through such incompetency, and leave some of them to depreciate his services by change or withdrawal of salary. Some such plan, or the abolition of salary to Chief Health Officers of the county, I believe to be desirable, to enable the State to get and keep the more competent service.

MADISON COUNTY.

Report of Dr. A. T. Semmes, Chief Health Officer.

To the Honorable State Board of Health of Mississippi :

GENTLEMEN : In attempting a report of the health of Madi-

son county, I shall be unable to make it satisfactory to myself or to your Honorable Board.

Unprovided with the convenience of a reliable barometer, thermometer, or rain-fall measure, I can only make some general remarks upon climatic condition.

The past year, dating from 1st day of September, 1880, has been remarkably different, in a climatic point of view, from what we usually experience in this section.

Commencing early in the autumn of 1880, heavy rains continued for several months, producing floods all over the county.

This hot spell was followed by the most severe winter that we have endured for the thirty years residence in Mississippi.

At no time did the mercury reach so low a degree as it did on a few days in the winter of '78-'9, but the average range was much lower all through the season than for many years.

After such a prolonged cold winter we have passed through a summer of unprecedented heat and dryness.

So protracted was the drought that water for stock became a heavy tax upon the farming people; and in a great many families drinking water of an inferior quality had to be procured from long distances.

This unusual condition of the climate resulted in a great change in the nature of the diseases met with at the commencement of last fall; in the month of September we had a good many cases of dengue fever, some of them fully developed and unmistakably marked with all the pathognomonic symptoms of the disease.

After the rainy spell set in, bloody flux (as it is generally known) showed itself quite frequently.

The cold sleety weather of November and December brought on many cases of pneumonia and bronchitis, which diseases prevailed on till late in the spring.

I saw no symptoms of diphtheria during the entire year.

Though warned by your honorable Secretary of the appearance of scarlet fever at some points in the State, I found no cases approaching that disease in character.

During the extremely heated summer, in its first half, there were comparatively few cases of fever; but all the cases which did develop, were strongly marked with the congestive type of remittent bilious fever. And this congestive tendency gave us a good many ugly cases of pneumonia in the dry heated period. These peculiar cases were more frequent than ever before noticed during dry summers.

In these strange cases there was a decided absence of pain in the lungs, and each daily period of remission in the fever would involve an enlarged area of the lungs in the painless hepatization,

On close examination of the lungs in these patients we would find one of the lungs perfectly free to-day, and after to-morrow's time of remission it would be completely engorged without the

patients being warned by the usual symptoms of acute pneumonia.

As we come on down to the present autumn, this congestive type became more prominent and prevalent, and at the time of this writing, we are having a great many cases of congestion of the liver, bowels and stomach, whereas earlier the head and lungs were frequently the points of attack.

Those cases in which the congestion attacked the bowels with most violence developed dysentery of rather a serious grade.

Acute hepatitis was not unfrequent and led to a good many cases of so-called typho-malarial fever.

Up to this time I have seen no typhoid fever, and I suppose the cases of which I have heard as such were really of the above typho-malarial nature.

There have been a few cases of hæmaturic fever in the county, but this form of the fever has certainly been rarer than in years of less heat and more moisture.

Jaundice has followed several of the cases of congestion of the liver, but much less frequently than "a priori" reasoning would lead us to expect.

There has been in my vicinity a marked deficit of diarrhæal cases, owing, in a great measure, I think, to the scarcity of fruits.

I attended two cases of positively well-developed sporadic Asiatic cholera, in which the rice-water discharges were profuse, producing thorough collapse with the characteristic muscular cramps and cadaveric ecchymosis.

The rate of mortality during the past year has been much above the average.

There has been a complete absence of all infectious or contagious diseases.

No vital statistical records are kept in this county.

No burial permits are required.

MONROE COUNTY.

Report of Dr. J. M. Greene, Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health:

I beg leave to submit the following report of the sanitary condition of this county during the past twelve months.

The severity of the winter months was attended with an unusual prevalence of catarrhal troubles, and pneumonia was quite frequent and unusually fatal, especially among the poor and aged.

In February, measles appeared in the county, and continued rife until May. While not generally malignant, it was quite severe, and frequently eccentric in the initial stages, the usual coryza and bronchial catarrh being substituted by violent gastric catarrh, with profound systemic depression, and preceding the eruption from four to seven days.

Fortunately there was little or no fatality and the rate of troublesome sequelæ was small.

In June and July a catarrhal dysentery prevailed extensively, attacking not less than thirty five per cent. of the population, but it was exceedingly mild and manageable, requiring treatment in but few cases. But in August and September, in one of the rural districts, dysentery became malignant, and gave a higher rate of mortality than yellow fever. This district is as little malarious as any part of the county, presents a topography favorable to salubrity, and, after careful investigation, nothing could be discovered to explain its special selection by the scourge.

Whooping-cough has prevailed to a limited extent.

The malarial fevers have been moderate in number and degree, certainly not exceeding those of the average season.

Typhoid fever has continued its appearance throughout the year but in sporadic form.

No authenticated cases of diphtheria have been reported.

The benefits of systematic sanitation have been positively evinced by the striking contrast in sickness and mortality as shown by this city and the rural part of the county. While in the former the death rate has been less than an average, in the latter it has been greater than has ever been known. The Health Officer regrets his inability to give any figures, since all efforts at securing a registry of births and deaths, even in the city, have been futile, and he still believes that nothing short of a penal statutory requirement by the Legislature will secure it.

MARSHALL COUNTY.

Report of Dr. A. M. West, Chief Health Officer.

Wirt Johnston, Secretary State Board of Health :

In accordance with my duties prescribed by the Mississippi State Board of Health, the following report, for the year ending October 1st, is submitted :

It is gratifying to be able to report, that during my official year, just closed, there has been no epidemic of any disease of a contagious or infectious nature within my official boundaries, save a circumscribed endemic of scarlet fever hereinafter mentioned.

Of course my information from the county, outside the limits of Holly Springs, being only partial from lack of authentic and detailed reports, will, to that extent, be deficient in thoroughness.

I am satisfied that the rules, regulations precautions and sanitary measures adopted by your Board, conceived, as they were, in wisdom and a comprehensive design of medical conservatism, are efficient in execution and thoroughly adapted to the ends practically aimed at. Hence, from my humble station as County Health Officer, I can offer no suggestions in amendment of what has already been so well and satisfactorily done.

In the execution of local sanitary measures, e. g. in the enforcement of cleanliness proper disinfection and removal of filth which may be detrimental to private and public health, I (most probably in common with other health officers) sometimes meet with stubbornness and a lack of that public-spirited co operation so essential to a thorough and satisfactory performance of my duties. Especially is this the case in times of fancied security, when the community is maintaining a healthy standard and no infectious or contagious disease appalls the tranquil eye and excites into feverish action the public pulse.

I think the people should be educated and elevated to a higher plane of action and intelligence on this very important subject; but I am persuaded your honorable Board will give this its due weight of consideration and will discharge your duties arising out of the same as patriotically, efficiently and satisfactorily as the necessity demands.

The following is a report of such general sickness as has occurred in this town and county, month by month, since last October.

October, 1880.—Intermittent fevers, neuralgia, catarrhal troubles and minor afflictions. No malignancy. Nothing infectious or contagious.

November, 1880.—Same diseases prevailed as during the previous month, save a few cases of pneumonia reported from the country. Fewer fevers and really less sickness than in October. Nothing infectious or contagious.

December, 1880.—Few cases of malarial troubles—considerable prevalence of “colds” and catarrhal affections—some cases of pneumonia and bronchitis reported from the country, and one or two cases of pneumonia in Holly Springs—None fatal reported. Nothing infectious or contagious.

January and February, 1881.—There were some few malarial troubles occurring through these two months—considerable increase of pneumonia, bronchitis and catarrhal sickness—pneumonia more prevalent and more fatal than since the winter of 1876, and more fatal in the country than in the town of Holly Springs. Was not able to get a correct detailed report of the number of cases and their fatality. There were three

deaths from pneumonia for the two months in Holly Springs. Nothing infectious or contagious.

March, 1881.—This was quite a sickly month—pneumonia still prevailing, but not so fatal—one fatal case in Holly Springs—not so many cases reported from the country as during either of the previous two months—some chills and fever in both town and country. Nothing infectious or contagious, save a few cases of whooping-cough in town and country, and eight cases of scarlet fever reported from neighborhood of Mt Pleasant. As soon as the scarlet fever was announced in said neighborhood, quarantine was established and isolation enforced, and the spread of the disease controlled.

April and May, 1881.—Only such sickness as is incident to the Spring months. During April especially, there was a great deal of sickness, mostly of malarial origin. There were a few cases of pneumonia even as late as the middle of April. Nothing infectious or contagious.

June, July and August, 1881.—Of the three summer months, August was the most noted for sickness, intermittent and remittent fevers being the prevalent forms. During the month of July and the first part of August, there were reported three cases of typhoid fever in Holly Springs, all of whom recovered. Other cases, in the neighborhood of the typhoid patients, which were *malarial*, assumed a *typhoid* type, two of which were fatal, and both were children.

September, 1881.—I was absent, on account of ill-health, during the latter half of this month. On my return home found one case of "*typho malarial fever*," which proved fatal. Malarial fevers, mostly remittent, prevailed considerably during the month, both in Holly Springs and in the country. Said fevers, *to some extent*, are characterized by *typhoid* symptoms. Neither myself nor Dr. Dancy, President of Board of Health, have seen any of these typhoid cases, save the typho-malarial case which was under Dr. Dancy's charge. They are reported by other physicians and seem to be confined mainly to the negro population.

I am investigating the cause or causes of this *so-called* typhoid condition, and will call upon the Board of Health, as also the Mayor to co-operate with me in executing my duties in the premises.

NOXUBEE COUNTY.

Report of Dr. H. A. Minor, Chief Health Officer.

To Mississippi State Board of Health:

GENTLEMEN: In making this, my annual report, I am happy

to be able to state that the inhabitants of this county (Noxubee) have not suffered during this year from any severe epidemic, contagious or zymotic diseases. Rubeola and pertussis have prevailed to some extent, but the cases were usually mild. Sporadic cases of diphtheria have occurred. There have been rather more malarial diseases than usual, but not often of a very severe character. We have not had any of those terrible expressions of it as seen in hæmaturial remittent, nor many cases of severe congestion. If my people would pay proper attention to drainage, and to their drinking water, I verily believe that no more healthy country could be found than this would be; and drainage can usually be effected very easily; the drinking water also can be secured, of good quality with proper care or effort. Especially do these facts obtain in the prairie lands. I have striven to instill a knowledge of hygiene, especially in reference to these points, into the people, by lecture and by newspaper articles, but they seem hopelessly indifferent to the subject. The town of *Macon* is especially well drained, and its sanitation is in most respects *very* good. The civil authorities willingly and energetically aid me, and carry out my suggestions. Hence, malarial and zymotic diseases are much more rare, and much more amenable to treatment.

OKTIBBEHA COUNTY.

Report of Dr. W. N. Ames, Chief Health Officer.

An epidemic of cerebro-spinal fever commenced about the first of January of the present year, in the eastern part of the county, and continued until the first of March. At the same time there prevailed an extensive epidemic of measles. The first case occurred in Starkville January 30, and was brought from Sardis, Miss. Every neighborhood and community in the county had the measles, and very few houses were exempted. The type was marked by its extreme mildness, as there were but few deaths from this disease in the county, and very few serious sequelæ. One death occurred in this county from measles complicated with acute enteritis. The subject was a negro woman. She had no medical treatment and died of neglect. As the measles existed in other counties in the State, the disease was brought to the A. & M. College by the students, and the surgeon in charge had a large number of cases to treat, which he did with great success.

The cerebro-spinal fever was of a remarkable type in the majority of cases. These cases had rather peculiar symptoms, not always observed in cerebro-spinal meningitis. The initial symptoms would be, perhaps, a rigor, with fugitive neuralgic

pains in the extremities, hyperæsthesia of the surface, rather high fever in some instances, temperature ranging from 101 to 104 degrees, quick pulse and the resemblance of the case to typhoid fever, especially in the protracted nature of the disease. The most of the patients suffered from extreme prostration and other features of adynamia. The absence of enteric complication, and the absence of the peculiar eruption of typhoid fever, showed conclusively that it was not this fever. The nervous system appeared to be the seat of the disease. Some cases were, of course, complicated with intercurrent pneumonia and bronchitis, as the season of the year would favor, but outside of these accidents there was no organ involved. The neuralgic pains continued as long as the fever existed, seated sometimes for a few hours in one foot or toe, and perhaps in a few hours transferred to the other extremity. All the functions controlled by the medulla oblongata were seriously interfered with. In a number of cases the pulse would fall to forty beats to the minute, and respiration not exceed ten, the patient being at such times partially comatose or partially insensible.

A number of cases of active meningitis were treated with success. Three deaths occurred out of perhaps 300 cases in all. Dr. Phares, Surgeon A. & M. College, met with a number of cases in his practice, and his success was remarkable.

For a more extended account of this epidemic I respectfully refer the Board to Dr. D. L. Phares, who took great interest in his cases and those of other physicians.

Oktibbeha county has enjoyed her usual health during the latter part of this year. We have not had the usual amount of malarial affections this year.

We have not had a case of typhoid fever in the county. Since first of September and the last of August we have had a number of cases of typho-malarial fever to treat, not confined to any particular part of the county. The results have generally been favorable. The physicians of this county meet these cases every fall. The enteric features of the cases are usually difficult to manage. The symptoms resemble typhoid fever, commencing with a fever that is not at all manageable, and continues a sub-acute enteritis for perhaps thirty or forty days, and attended with extreme emaciation.

PANOLA COUNTY.

Report of Dr. A. I. Ellis, Chief Health Officer.

Dr. Wirt Johnston :

DEAR SIR--Since my annual report of last October, in

which I stated briefly something of the topography of this county and the usual diseases and their causation. I have the pleasure to submit through you to the State Board of Health the healthiest year we have had since 1845, especially so far as malarial diseases are concerned. Our comparative exemption from this form of disease during the past summer, I believe to be owing to the extreme dryness of the season and the absence of any considerable luxuriance of vegetable matter. According to the book theory, in order to the production of marsh miasm, heat, moisture and vegetable matter are necessary. We certainly had excessive heat, but not the moisture and vegetation.

It affords me pleasure to report no epidemic diseases since last year's report. The winter months were, perhaps, more severe than usual, consequently old people and children suffered more from diseases of a pulmonary and catarrhal character, but with small death rate. Some few cases of sporadic dysentery and diarrhoea have occurred, but of a mild type. During the extreme cold weather of last winter we had more rheumatism in this locality than in preceding years, and also more diseases of a nervous character. In the winter and spring months we had rather more typhoid fever than several years preceding, but not amounting to an epidemic.

We are not much troubled with pulmonary disease of a chronic character; pneumonia, acute bronchitis and the ordinary catarrhal fevers being more prevalent.

I might enumerate other diseases that prevailed to a limited extent, which are more or less common, but not of such magnitude as to be of interest to the State Board of Health. The only apology I can offer for this imperfect and meagre report, is that I have been unable to secure the necessary co-operation of the people, and especially of my medical friends.

I highly appreciate and estimate State medicine, not only as a means to protect human life, but as a financial measure, which has not been unworthy of the consideration of statesmen. As a proof of my desire for the success of the labors of the State Board of Health, I respectfully extract from a short card published by me in our village paper, in which I urged the importance of strict compliance with the law by all incorporated towns and physicians. It was by my urgent request that the municipal authorities of this town passed an ordinance requiring all physicians residing in said town to furnish to the Clerk of the Board by the first of October, and he to the Chief Health Officer, all deaths occurring in their practice, but I regret to report they have failed to comply with above ordinance. The following is the extract above alluded to:

"The State Board of Health urges the importance of each incorporated town in our county to organize a Board of Health. If any incorporated town should not have the power under its charter to enforce rules for sanitary purposes, Sec. 11 of an

Act to amend the Statutes in regard to Boards of Health, approved March 4, 1880, gives them, according to the opinion of the Attorney-General, full power to enforce ordinances necessary for the protection of the public health. The same Act, Sec. 11, states further that all incorporated towns in the State shall have power to appoint Boards of Health and to suppress as nuisances anything dangerous to public health, with full power of enforcing ordinances for the registration of mortuary statistics. The State Board requires me to furnish mortuary statistics of each incorporated town. I therefore urge each to furnish me with the same by the first of September next, at which time I am required to make report."

If the provisions of the above ordinance had been complied with I would have been able to make a more thorough and satisfactory report.

WARREN COUNTY.

Report of Dr. W. T. Balfour, Chief Health Officer.

Dr. Wirt Johnston, Secretary State Board of Health :

DEAR SIR—I herewith submit my semi-annual report for the six months ending April 1st, 1881. My last report closed on October 1st, 1880. At that time I reported a case of supposed diphtheria, which had been reported to me on September 24th, but which was, in all probability, a case of mild scarlet fever, as the subsequent facts seemed to prove.

In my note book I have recorded the following, dated Oct. 1st, 1880:

"The case reported on September 24th, as one of diphtheria, has recovered, but another child in the same family is sick. To-day it is pronounced to be mild scarlet fever. The child has the sore throat and eruption of scarlet fever; in this there is some resemblance to roseola. The first case had an eruption, but not as well marked as the second. No known source of infection. I deem it unnecessary to relate the succession and history of the succeeding cases, and will simply state that there were ten in all, covering a period dating from September 24th to December 5th, 1880. All of the cases recovered."

A full history of this scarlet fever outbreak was mailed to you at the time.

I will here state that at this time I notified you of the action of the Municipal Board of Health in relation to a sanitary survey of this city by the National Board of Health. The National Board of Health replied that the communication

had been received and favorably acted upon, but would be delayed, as there were no available funds at their disposal at that time for such purposes. Since the present Congress has made an ample appropriation for all of the needs of the National Board of Health, a communication has been addressed to them, and to the resident member at Memphis, to neither of which has an answer been received to date.

The circulars issued by the State Board of Health to prevent the spread of scarlet fever, were received and distributed to the press and the people.

On December 20th a death from diphtheria was reported. No other cases have occurred.

January 13th, 1881, two cases of measles, contracted in Brookhaven, this State, were reported to me. No other cases.

March 15th, a case of small pox at the city pest-house, from steamboat J. Sharp McDonald. A history of this case has been sent to you, also to the authorities at New Orleans, Louisville and Pittsburg, and to the National Board of Health, and to Drs. Bemiss and Mitchell.

March 23d, 1880.—This afternoon I was called to see a colored child six years old, who presents all the symptoms of measles. She has been attending a favorite colored school in town, but can trace no source of infection. Will report further information or any new cases.

March 24th, 1881.—Three more cases of measles discovered to-day, a few hundred yards from that of yesterday, and have been attending the same school. One, aged eleven years, was taken sick on 21st, and eruption appeared in two days; another, in same family, aged nine years, eruption appeared on 23rd; another, in same family, aged eight years, has no eruption, but fever for two days and cough and suffusion of the eyes—all colored. I can find no source of infection from the school.

The small-pox case died to-day, and have had him buried in the rear of the pest-house, and enveloped in a sheet saturated with zinc chloride solution and No. 5 carbolic acid, and the bedding, baggage, etc., burned. I am having the proper precautions taken by disinfection, etc., and by fumigation, to prevent any infection from this case. Will notify you should there be further developments.

March 25th, 1881.—Another case of measles to-day, in the opposite end of town. Can trace no infection to the same source as the others. This evening I discovered a case of chicken-pox on the levee—a white child about nine years of age; has been attending the public school.

I have vaccinated the patients and attendants in the hospital. There has been no appearance as yet of another case of small-pox.

VICKSBURG Miss., October, 1st 1881.

Dr. Wirt Johnston, Secretary Mississippi State Board Health:

DEAR SIR:—I herewith submit my semi-annual report, as

County Health Officer, for the six months ending September 30th 1881.

April 23.—I reported the prevalence of meningitis in the city and suburbs. There was one death on the 20th in the county, and two in the city on the 23d, both white. I had at this time a case in the city hospital, a mulatto boy who subsequently recovered. At that writing there were six cases in all, and every one of them over fifteen years of age—young adults.

May 13.—There had been five or six deaths from the same cause, and several cases in the city. On the same date as above, I reported to you the condition of Messrs. Ehrmans' slaughter-pen and declared it in my judgment a public nuisance.

May 18.—I received instructions from you to notify Messrs. Ehrmans that their slaughter-pen was a nuisance and to abate the same immediately. This I did, informing them how to keep it in a good sanitary condition, which they promised faithfully to carry out. They failed to do as they had promised, and still receiving numerous complaints of the horrible stench arising therefrom, on August 19th I sent to you a petition signed by the majority of the residents of the neighborhood, asking that the slaughter pen be abated. I also sent you a report of the same after an inspection of it on that day, declaring that I considered it a public nuisance, as Messrs. Ehrmans had failed to comply with their agreement. September 17th, upon this evidence the case was tried by the Judge of the Circuit Court of this District, and he promptly declared it a nuisance and ordered the same abated.

June 19.—A case of diphtheria was reported to you.

June 30.—I visited the poor house and found everything very comfortable and clean for the seven occupants.

Aug. 17.—There was a death from meningitis. August 19th, I reported to you several cases of typhoid fever; upon inquiry I found several of the physicians had several such cases.

Aug. 20.—Another death from diphtheria, and two more in the same family. They have no connection with the case reported above. August 25th cases reported last are now convalescent. August 30th four more cases of diphtheria reported, and many sore throats in the neighborhood. They all recovered. In all about twelve cases well marked, besides the sore throats, which were probably due to the same cause.

Sept. 26.—I received a communication from Dr. F. W. Reilly that by order of the Executive Committee of the National Board of Health, the Inspection Station below Warrenton would be discontinued on the 30th of September, and all Inspections cease after that date, etc.

Knowing that the Inspections at the Vicksburg Station had been very badly conducted for a time during the summer. I replied to Dr. Reilly, who was in the city but did not call to

see me; that his letter had been received and contents noted. Thanking the National Board of Health for the services rendered this community during the summer, I sincerely hoped the inspection system on the river would be inaugurated next season, but more efficiently managed than it had been during the past summer.

WASHINGTON COUNTY.

Report of Dr. R. S. Toombs, Chief Health Officer.

GENTLEMEN—In offering this report to your honorable body, I have the pleasure to state that we have had during the past year a complete immunity from all contagious or infectious diseases, save a slight form of measles occurring in a few sections of the county.

During the winter months bronchitis and pneumonia prevailed in some of the low districts of the county, and, as is usual, was most prevalent, as well as fatal, in those classes who were ill-prepared to withstand the vicissitudes of winter, and more especially with those subjects whose constitutional vigor had been impaired from chronic chills and malarial cachexia.

During the spring months, bowel derangements were frequently met with. A bilious form of dysentery prevailed in some localities, almost epidemically. The disease was extremely obstinate, and less amenable to treatment than in former years.

Later in the season, a low type of fever prevailed, of a typho-malarial character. Indeed, most of our diseases had a well marked tendency to assume the aplastic or asthenic form, and were attended with an unusual degree of prostration and debility. Quinia has seemed to exert less curative effect upon our fevers than usual, and in many cases of this typho-malarial type, the drug exerted only a modifying influence over the disease, lessening temperature during its exhibition. Some of these cases afforded evidences of great nervous disorder, temporary deafness, loss of vision, etc., while others were marked with gastric and gastro-enteric symptoms, not infrequently attended with hemorrhages demanding hæmostatic treatment.

While malarial hæmaturia has not been so prevalent as in years previous, the disease appeared more fatal than heretofore, and less amenable to treatment.

We have urged the importance of vaccination, but regret to report great indifference generally, but more especially among the negroes and lower classes, to avail themselves of the protection afforded from this precautionary measure. Nothing but compulsory laws will ever cause this class to be vaccinated.

We have ever endeavored to impress our people of the importance of using cistern water, in lieu of the general use of driven wells, yet the major part of our citizens rely upon this source of water supply for general use.

I would most respectfully submit to your honorable body, that I have had great trouble in supervising the sanitary condition of the slaughter-houses located just outside the corporate limits of this city. Before the organization of the State Board of Health, there was erected at considerable expense two large houses of this character upon the banks of a chute bordering the north-eastern limits of this place. This chute in mid-summer becomes still water, and the butchers had been in the habit of casting the offal and refuse from these houses into this water, which became both offensive and unhealthy. Immediately upon my appointment to office I at once inspected these houses and put them rigidly under the rules of your Board. I ordered the offal removed daily, and kept the houses in a healthy condition. I have found this an herculean task, as the butcher, as a sanitarian, is a failure. But usually, when I threatened the rigid enforcement of the Rules of your Board, my instructions were obeyed. During my enforced absence in the month of August last, for the purpose of recruiting my health, these instructions were neglected, and the house of one of these parties (C. Moyse & Co.,) became foul and offensive, and a firm by the name of Adams & Jones added another structure of like character to the number, and in the same locality, but at less expense. At this time the very worthy Secretary of your Board was appealed to by a petition numerously signed for their removal. Said petition was very kindly forwarded to me by Dr. Johnston, when I at once inspected said houses and set them to rights, and but for the absence of C. Moyse, who, like myself, had been absent in quest of health, should have asked the removal of his house, as a nuisance under Section 9 of law creating State Board of Health. Said C. Moyse & Co. gave me a sacred pledge to keep their house strictly in accord with your rules, and promised to remove the same voluntarily if further complaint was made. Now if in your judgment further leniency should not be extended him, I will at once personally and officially ask its removal. I would state here, that I should ask these houses to be removed to the river bank but for the continual caving of the same. I shall certainly see that nothing from them passes into the chute above mentioned.

I have seen fit to change the system of cleaning our county jail, and have inaugurated a plan to afford better ventilation to the prisoners, and preserve the health of the same.

In my last report to your honorable Board I presumed to offer some suggestions upon the importance of bringing before the Legislature of our State the necessity of some law creating a Drainage Commission..

Without further taxing your indulgence upon this subject, I beg to say that until the problem of drainage is solved, all other matters of local hygiene for this valley are but secondary in importance. The recent sale of the lands of the Levee Board, and the reclaiming of other lands hitherto lying in waste, leads me to believe that this section, once drained would restore health to its population, and invite a thrifty white immigration that would yield a revenue to our section and State far in excess of the cost of any rational system of drainage.

Yearly immense bodies of water are imprisoned along the line of our levees, until the summer sun evaporates and the earth absorbs the same. These waters emit noxious vapors, producing disease and death, and which, by proper authority and effort, could be drained back into the river, or allowed to pass through the levees, by piping arranged with suitable lock flood-gates. A body of water as above described is left, after the river falls every year, within a mile of this city, to disseminate its pestilential odors, to the great injury of the health of the city and its environs.

Trusting that this last feature of my report may be considered by your honorable Board, all is respectfully submitted.

JACKSON COUNTY.

Report of Quarantine at Pascagoula.

To the Honorable State Board of Health, Jackson, Miss. :

The Board of Health of Jackson county submits the following report of its operations for the epidemic season of 1881:

Quarantine was established May the 16th, and was continued until November first, during which time forty-four vessels have arrived in port and been boarded, The arrivals from tropical ports have not been so numerous as last season and greater care has been taken to observe the sanitary and quarantine regulations published by the National Board of Health. The Italian Bark *Dea* arrived from Aspinwall, having lost two men and had others sick on board, but none at the time of arrival. She was treated as an infected vessel and was sent to the Ship Island station and detained for observation fifteen days, but no other cases occurred on board. It is the opinion of this Board,

that if the opinion of the Attorney-General, relative to the quarantine law in Harrison and Hancock counties, is correct, in view of the fact that the latter county has no quarantine this season, and that Harrison county removed her quarantine restrictions on the first of October; that some further legislation should be had at the next meeting of the Legislature, enlarging the powers of the State Board.

We feel constrained to commend the very efficient manner in which the National Board of Health Quarantine Station at Ship Island has been conducted this season, and hope it will be continued and liberally supported by the Government; for the good of the whole country.

Accompanying this is the report of the Secretary and Treasurer.

All of which is respectfully submitted,

E. F. GRIFFIN, President.

M. M. EVANS, Secretary.

Sanitary Rules and Regulations

OF THE

MISSISSIPPI STATE BOARD OF HEALTH.

FOR PREVENTION OF DISEASE.

RULE 1.—No privy-vault, cesspool, or reservoir into which a privy, water-closet, stable or sink is drained, except it be water-tight, shall be established or permitted within fifty feet of any well, spring, or other source of water used for drinking or culinary purposes.

Reason.—Soil, especially if it be sandy loam or gravel, or clay with inclined strata or layers, is often an unsuspected conductor of the liquid contents of such receptacles to wells or springs of water. Many well-authenticated cases of typhoid fever and other dangerous and often fatal diseases have been traced to the use of water so contaminated.

RULE 2.—In privies with no vault below the surface of the ground, dry earth or coal ashes must be used in sufficient quantities, and often enough to absorb all the fluid parts of the deposit, and the entire contents must be removed sufficiently often to insure cleanliness.

Reason.—Dry earth or coal ashes are nearly complete disinfectants if used in sufficient quantities to absorb all the fluids.

RULE 3.—Privies with vaults and all cesspools and reservoirs named in Rule 1, must be cleaned out at least once a year between the months of November and March, and from the first day of March to the last day of November shall be kept thoroughly disinfected by adding to the contents once every month, a solution of copperas.

Reason.—During the hot season putrescent gases are given off from the decomposing excreta in such vaults. These gases

are not only very offensive, but are frequently the cause of dangerous diseases. They contain compounds of ammonia, which are decomposed by solution of copperas and the foul odor destroyed. In a family vault two pounds of copperas a month is usually sufficient. In vaults used by a large number of persons, five or more pounds of copperas should be used monthly.

RULE 4.—No privy vault or cesspool shall open into any stream, ditch or drain, except such sewers as are covered and well protected, or such as are kept thoroughly cleansed and purified.

Reason.—Same as for Rule 1.

RULE 5.—No night soil or contents of cesspools shall be removed unless previously deodorized by mixing with solution of copperas, and during removal the material shall be covered with a layer of fresh earth, except the removal be by the "Odorless Excavating Process."

Reason.—Same as for Rule 3.

RULE 6.—All sewer drains that pass within fifty feet of any source of water used for drinking or culinary purposes shall be water-tight.

Reason.—The danger of contaminating the water.

RULE 7.—No sewer drain shall empty into any lake, pond or other source used for ordinary purposes, nor into any standing water whereby health may be endangered.

Reason.—Same as for Rule 1.

RULE 8.—No house offal, dead animals, or refuse of any kind shall be thrown upon the streets or public highways, or left exposed by any person; and no butcher, fish monger, or vendor of merchandise of any kind, shall leave any refuse upon the streets, or uncovered by earth upon the lots of any county, city, town or village, and putrid and decaying animal or vegetable matters, must be removed from all cellars and out-buildings, on or before May first in each year.

RULE 9.—All families, hotels, restaurants and others accumulating garbage, are required to have a proper covered receptacle for swill and house offal, and to cause the contents to be regularly removed as often as twice a week between the first day of May and the first day of November, and once a week at all other seasons.

Reasons for 8 and 9.—Decomposing animal and vegetable matters are the sources of poisonous gases, dangerous to health.

RULE 10.—No hogs shall be kept in pens within one hundred and fifty yards of any dwelling, except in such with floors, kept entirely free from standing water, and regularly and freely disinfected.

The health authorities will order the removal of such ani-

mals at any time, when they appear to be prejudicial to the public health, safety or comfort.

Reason.—Same as for 8 and 9.

RULE 11.—No animals affected with an infectious or contagious disease, shall be brought within the limits of any county, city, town or village, except by permission of the Chief Health Officer of the county, or the Municipal Board of Health, if it be an incorporated town, and there is such a Board. No diseased animal, or its flesh, and no decayed, diseased or unfit meat, fish, vegetables or fruit, or diseased, impure or adulterated milk or other article shall be sold or offered for sale as food.

RULE 12.—No slaughter-house or abattoir shall be established or used as such within any county, city, town or village, unless kept free from all obnoxious smells, and all offal be removed every day; and no melting or rendering house, and no place for manufacturing or other business *giving rise to obnoxious or injurious vapors or odors*, shall be established or used as such within any county, city, town or village except by the permission of the Chief Health Officer of the county, or the Municipal Board of Health, if it be an incorporated town and there is such a Board.

RESTRICTION AND DESTRUCTION OF INFECTIOUS AND CONTAGIOUS MATTER.

RULE 13.—Any householder in whose dwelling there shall occur a case of cholera, yellow fever, scarlet fever, diphtheria or small-pox, shall immediately notify the Chief Health Officer of the county, or the Municipal Board of Health if it be an incorporated town and there is such a Board, and, until instructions are received from one of the above named health authorities, shall not permit any clothing or other property that may have been exposed to infection to be removed from the house, nor shall any occupant take up residence elsewhere without the consent of the health authorities.

RULE 14.—Any physician who may be called to a case of any of the diseases specified in the foregoing rule shall, at once, report such case to the Chief Health Officer of the county, or the Municipal Board of Health, if it be an incorporated town and there is such a Board, and receive instructions in regard thereto; and whenever there shall come under the observation of any physician such number of cases of measles, typhoid fever, dysentery, whooping-cough or cerebro-spinal meningitis as in his opinion to justify the belief that an epidemic thereof is threatened or exists, he shall at once report the same to the local health authorities, with such suggestions in regard thereto as may seem to him best.

RULE 15.—No person or article liable to propagate a dangerous disease shall be brought within any county, city, town or

village without the special consent and direction of the Chief Health Officer of the county, or of the Municipal Board of Health, if it be an incorporated town and there is such a Board; and whenever it shall come to the knowledge of any person that such person or article has been brought within such limits, he shall immediately give notice thereof to the Chief Health Officer of the county, or the Municipal Board of Health, together with the location thereof.

RULE 16.—No person sick with any of the diseases specified in Rule 13, shall be removed at any time except by permission and under direction of the Chief Health Officer of the county, or the Municipal Board of Health, if it be an incorporated town and there is such a Board.

RULE 17.—Persons affected with any of the diseases specified in Rule 13, and all articles infected by the same, shall be immediately separated from all persons liable to contract or communicate the disease, and none but physicians, nurses and the clergyman of the family shall be allowed access to persons sick with these diseases, and these persons, in the case of yellow fever, small-pox or scarlatina, after having visited such sick, shall not leave the premises, nor mix with other persons, until they change their clothing in a pure atmosphere, or are thoroughly disinfected.

RULE 18.—Persons recovering from any of the diseases specified in the preceding Rules, and their nurses, shall not leave the premises till they have been thoroughly bathed, and their clothing disinfected.

RULE 19.—Houses in which yellow fever, cholera or small-pox have occurred, shall be subjected to sulphurous fumigation.

RULES FOR DISINFECTION IN CONTAGIOUS OR INFECTIOUS SICKNESS.

I.—DISINFECTANTS TO BE EMPLOYED.

1. Roll-sulphur (brimstone) for fumigation.
2. Sulphate of iron (copperas) dissolved in water, in the proportion of one and a half pounds to the gallon; for soil, sewers, etc.
3. Sulphate of zinc and common salt dissolved together in water, in the proportion of four ounces sulphate and two ounces salt to the gallon; for clothing, bed linen, etc.

NOTE.—Carbolic acid is not included in the above list, for the following reasons: It is very difficult to determine the quality of the commercial article, and the purchaser can never be certain of securing it of proper strength; it is expensive, when of good quality, and experience has shown that it must be employed in comparatively large quantities to be of any use; it is liable, by its strong odor, to give a false sense of security.

II.—HOW TO USE DISINFECTANTS.

1. *In the sick-room.*—The most available agents are fresh air and cleanliness. The clothing, towels, bed linen, etc., should, on removal from the patient, and before they are taken from the room, be placed in a pail or tub of the zinc solution, boiling hot, if possible.

All discharges should either be received in vessels containing copperas solution, or when this is impracticable, should be immediately covered with copperas solution. All vessels used about the patient should be cleansed with the same solution.

Unnecessary furniture—especially that which is stuffed—carpets and hangings, should, when possible, be removed from the room at the outset; otherwise, they should remain for subsequent fumigation and treatment.

2. *Fumigation* with sulphur is the only practicable method for disinfecting the house. For this purpose the rooms to be disinfected must be vacated. Heavy clothing, blankets, bedding and other articles which cannot be treated with zinc solution, should be opened and exposed during fumigation, as directed below. Close the rooms as tightly as possible, place the sulphur in iron pans supported upon bricks placed in wash-tubs containing a little water, set it on fire by hot coals, or with the aid of a spoonful of alcohol, and allow the room to remain closed for twenty-four hours. For a room about ten feet square, at least two pounds of sulphur should be used; for larger rooms, proportionally increased quantities.

3. *Premises.*—Cellars, yards, stables, gutters, privies, cess-pools, water-closets, drains, sewers, etc., should be frequently and liberally treated with copperas solution. The copperas solution is easily prepared by hanging a basket containing about sixty pounds of copperas in a barrel of water.

4. *Body and Bed-clothing, etc.*—It is best to burn all articles which have been in contact with persons sick with contagious or infectious diseases. Articles too valuable to be destroyed should be treated as follows:

(a.) Cotton, linen, flannels, blankets, etc., should be treated with the boiling hot zinc solution; introduce piece by piece; secure thorough wetting, and boil for at least half an hour.

(b.) Heavy woolen clothing, silks, furs, stuffed bed covers, beds and other articles which cannot be treated with the zinc solution, should be hung in the room during fumigation, their surfaces thoroughly exposed, and pockets turned inside out. Afterward they should be hung in the open air, beaten and shaken. Pillows, beds, stuffed mattresses, upholstered furniture, etc., should be cut open, the contents spread out and thoroughly fumigated. Carpets are best fumigated on the floor, but should afterwards be removed to the open air and thoroughly beaten.

5. *Corpses* should be thoroughly washed with a zinc solution of double strength; should then be wrapped in a sheet wet

with the zinc solution, and buried at once. Metallic, métal lined or air-tight coffins should be used when possible.

SUGGESTIONS IN REGARD TO GENERAL SANITATION.

DRAINAGE.—A thoroughly drained soil is all-important. This should be secured where practicable, by a complete system of sewers or underground drains. If this is not practicable, superficial or surface drains should be properly located, and frequently examined, so as to insure cleanliness and effectiveness.

It is of the first importance that dwelling houses should be built on dry ground, so elevated that there shall be no possibility of an accumulation of stagnant water under the floors at any time.

Constant inspection of houses, cellars, yards and out buildings is imperative, so as to prevent the accumulation of filth, garbage or masses of decomposing organic matter so prejudicial to health. It is equally necessary that some means be devised for the disposal of the same, so as to render it harmless.

WATER-CLOSETS AND PRIVIES.—*Foul odors are Nature's signal of danger.* Water closets should be properly constructed, kept free from odor and always plentifully supplied with water. The waste-pipes should be wholly disconnected from all other pipes and provided with independent ventilation. They should be so located as to avoid all possibility of polluting the air of any other part of the house.

Where privies are used, they should be built *above ground with water-tight vaults*, kept always free from foul smell by the liberal use of *dry earth* sifted upon the contents or by the use of a solution of copperas. They should be emptied at least twice a year or oftener if the contents accumulate to more than one-third the capacity of the vault. The walls and ceilings should be thoroughly whitewashed.

Instead of ordinary privies the *pail system* in general use in many of the manufacturing towns of England is recommended as being found to combine economy, simplicity of construction, easy management, with great facility for removing contents without odor or inconvenience.

Privies should be so placed as to prevent their exhalations from contaminating the air of houses or polluting the sources of water supply from wells or cisterns.

WATER SUPPLY.—"Water, next to air, is the chief necessary

of life." We may even place it before food, because all food is largely composed of it; and it is required, too, for personal cleanliness, and for the purification of our houses and their surroundings.

Running streams and springs, which are the best sources of water supply, should be frequently examined, in order to detect otherwise unsuspected causes of pollutions.

Cisterns should be constructed of suitable material, carefully built and covered, and so placed that no foul air can pass through or over the water they contain. The overflow pipes from cisterns should be free from connection with any other pipes. Roofs and gutters supplying cisterns must be frequently inspected, and some simple contrivance should be adopted to insure their careful cleansing, before the water is allowed to run into the cistern. Cistern water ought to be frequently examined and kept free from color, odor, or other indications of impurity.

Wells are the most dangerous sources of water supply, for few wells are safe from surface pollution. Wells should, therefore, be properly located, to avoid all possible risk of contamination from their surroundings, carefully built with elevated curbs and covered tops. The water they contain should be examined at short intervals.

A simple method of examination is by dissolving a lump of loaf sugar in a quantity of the suspected water in a clean bottle, which should have a close-fitting glass stopper. Set the bottle in the window of a room where the sunlight will fall on it. If the water remains bright and limpid after a week's exposure, it may be pronounced fit for use. But if it becomes turbid during the week, it contains enough impurity to be unhealthy. Such water should not be used for drinking purposes until it has been boiled and filtered; after which, it should be aerated by any simple process, such as pouring several times from one vessel into another in the open air. The addition of a solution of permanganate of potassa will also serve, in most cases, to sufficiently purify water for drinking purposes. Eight grains of the permanganate to one ounce of distilled or boiled water will make the solution. Add one drop of this to half a pint of the suspected water; if the red tint disappears in half an hour, add another drop. For every drop that loses its color in the half pint, there will be from one-half to two grains of organic impurity in one gallon of the water. If such water must be used, drop in the permanganate until the red tint remains; the solution in this proportion is not injurious, nor does it taste unpleasantly.

DWELLINGS.—The prime conditions of health in a house depend upon *cleanliness, pure air and unpoluted water*; the prompt and thorough removal of all refuse; and the perfect exclusion of all foul matters arising outside the house.

Good ventilation is absolutely necessary. Rooms should be frequently aired, and if possible the sunshine admitted daily.

Overcrowding is a fruitful source of air pollution in dwellings.

Zealous attention should be paid to cellars, pantries and passages. Mold, dampness and foul smells are never to be neglected. The sun's rays, free ventilation and a lavish use of whitewash are excellent scavengers.

The floors of dwellings should be frequently washed. Choose for this purpose a dry day; doors and windows to be left open during and after the operation until thoroughly dry. The floors of dwellings should always be raised from three to four feet above ground, so as to insure perfect ventilation beneath, and the site should be higher than the surroundings, so as at all times to prevent dampness or presence of stagnant water.

DISINFECTANTS AND DEODORANTS.

Deodorizers, or substances which destroy smells, are not necessarily disinfectants, and disinfectants do not necessarily have an odor.

Disinfection cannot compensate for want of cleanliness nor of ventilation.

From the long list of these agents the following have been selected, as it is believed they will meet all ordinary demands:

1.—FRESH STONE LIME.

Application.—To absorb moisture and putrid fluids.

How used.—Pulverized and scattered over places to be dried. In damp rooms it should be placed in pans in liberal quantities. Mixed with water, it is used to lime-wash walls and ceilings. It is useful when spread over heaps of fresh manure as a preservative.

2.—CHLORINATED LIME.

Application.—To destroy putrid gasses and check putrefaction.

How used.—A solution of *chlorinated lime* made by straining and decanting a gallon of water into which a pound of the lime has been dissolved is a good disinfectant fluid to use in washing the bodies of those who have died of small-pox, cholera, scarlet fever and other diseases. It is a good solution to use in the sick room for cleansing the hands of the nurse, and into which small articles can be immersed which are awaiting an opportunity to be boiled.

To generate *chlorine gas*, pour strong vinegar or dilute sulphuric acid upon chlorinated lime placed in pans in the room. Or, place in an earthen vessel four ounces of peroxide of manganese and pour upon it one pound of muriatic acid.

Chlorine gas is regarded as an efficient disinfectant, but it must be *efficiently applied*. It is very efficient in disinfecting confined or infected atmosphere and porous substances. Its

rapid diffusion and power of penetration are great. It destroys sulphuretted hydrogen, ammonia, and all fetid organic compounds. Its odor penetrates far beyond its power as a disinfectant, hence its real degree of influence may be deceptive. It can appropriately be used in disinfecting foul cellars and rooms unoccupied.

3.—DRY EARTH.

Application.—To absorb effluvia from decaying animal and vegetable matter, and appropriately human excreta.

Dry earth is nearly a complete disinfectant if used in sufficient quantities to absorb all moisture. It is especially applicable to the deodorizing of privy contents, where the basin is shallow, with a limited quantity of fluid. It should be abundantly applied.

4.—SULPHUROUS ACID GAS.

Application.—To disinfect rooms and infected clothing. Applied only in case of unoccupied rooms. To be effectual in destroying disease germs, the fumes must be so strong that they would destroy human life.

Can be used in disinfecting rooms and clothing after cases of *yellow fever, small-pox, scarlet fever, cholera and typhoid fever.*

Sulphurous acid has long been esteemed as a powerful disinfectant. It is to be preferred to *nitrous acid* or *chlorine gases*, because of the great irritation these latter produce upon the mucous membrane of the air passages when inhaled.

These gases should only be used under the direction of a competent physician.

How used : Place in an earthen vessel or iron kettle containing a small quantity of ashes, a few live coals, upon which place from one to four pounds of sulphur, according to the size of the room. For a room about ten feet square, at least two pounds of sulphur should be used. For larger rooms, proportionally increased quantities.

To guard against accident by fire, it is well to place the vessel on some fire proof article, or suspend it over a tub of water. As soon as the sulphur is ignited, the room having previously been rendered tight, should be closed and remain closed for twelve or twenty-four hours.

Ventilation, and painting the wood work, white-washing and re-papering the walls, will complete the process, and fit the room for re-habitation.

5.—SULPHATE OF IRON (COPPERAS.)

Application.—To disinfect privies, cess pools, drains, sewers, and all vessels and places receiving the discharges of the sick.

It decomposes the sulphuretted hydrogen and the ammonical compounds so poisonous and offensive in privy vaults.

How used.—Dissolve one and a half or two pounds in a gallon of water. A privy vault which accomodates an ordinary sized household, will require at least one-eighth of this quantity twice every week during the hot summer months. The contents of a privy six feet in diameter and twelve feet deep, will require twenty pounds of copperas to disinfect it. Masses of filth in privies, sewers or drains should be thoroughly saturated with it, at brief intervals, until all offensive odors are gone.

6.—CARBOLIC ACID.

Application.—Mixed in the proportion of one part acid to from forty to one hundred parts water.

How used.—In solution in water of varying strength, according to the purposes to which it is to be applied. It is especially adapted to disinfect *sewage, foul grounds, drains, sinks, foul heaps of manure, garbage, stables or privies* and the air of foul places. On account of the offensive odor of the impure it would be better to use the pure acid. It is only admissible for out-door use on accounts of its odor.

7.—HEAT.

This may be applied as *dry air* or *boiling water*, or *heated steam*.

Dry Air.—Hot dry air is the most powerful and complete disinfectant. It chemically disorganizes noxious substances, and by producing thorough dessication, prevents putreficative change.

It also sets in motion atmospheric currents which mechanically dissipate morbid agents. It has been proved that a temperature of 212 degrees Fahr. destroys the virus of small-pox; one of 200 degrees that of scarlet fever, and that vaccine virus being subject to a temperature of 140 degrees becomes speedily inert.

In the use of *dry heat* two things are to be observed :

1. That the heat shall be equally distributed throughout the fabric so as to secure safety in all its parts.
2. That the temperature shall not be raised so high or continued so long as to destroy the fabric.

A temperature of 240 or 250 degrees should be employed. This degree of heat can be applied to white woolen fabrics, linen, cotton, silk and paper, for two or three hours without danger. A longer time produces discoloration. An oven, cautiously heated, may be used to disinfect small articles.

Such articles or infected garments as will admit of being *boiled*, should be subjected to this process for at least two hours. Until such a process is commenced, all infected articles should

remain immersed in some of the disinfecting fluids already mentioned.

For infected substances and garments that may be destroyed, *heat to destruction* should always be used.

8.—CHLORIDE OF ZINC.

Chloride of Zinc may be used instead of copperas, and has the advantage of neither bleaching nor staining white or colored fabrics with which it may come in contact. On this account, it is especially useful in disinfecting clothing, bedding, etc.

CLEANLINESS, PURE AIR, PURE WATER, GOOD FOOD AND PROPER CLOTHING.

Are great safeguards against infectious diseases. Artificial disinfectants cannot be made to supply the place of these essential conditions of personal and public health.

Quarantine Rules and Regulations,

OF THE

Mississippi State Board of Health.

These rules and regulations have special reference to yellow fever, but may at any time be enforced in any case of other epidemic diseases, either with or without amendment at the discretion of this Board.

The Board reserves the right to amend them when regarded necessary.

They are divided into two sections :

1. Rules and regulations to be enforced and observed at stations at the limits of the State to prevent the introduction of disease from an adjoining State.

2. Rules and regulations to be enforced and observed in and around a place in this State that becomes infected.

Quarantine Stations shall be established at points sufficiently remote from inhabited dwellings to secure immunity from diseases likely to be communicated; and all quarantine officers and employes shall remain at their stations unless otherwise ordered by this Board.

Accommodation will be provided for officers and employes, persons undergoing detention, and the sick that may be placed under observation.

EXPLANATIONS.

A place shall be considered *infected*, when a case of yellow fever has originated here, or at which small-pox exists as an epidemic.

A place shall be considered *dangerously infected* when so declared by the State Board of Health.

RULES AND REGULATIONS

TO BE ENFORCED AND OBSERVED AT QUARANTINE STATIONS AT
THE LIMITS OF THE STATE, TO PREVENT THE
INTRODUCTION OF DISEASE FROM
AN ADJOINING STATE.

1. Every train coming from the direction of an *infected* locality, or from the direction of the connection of the railroad with such locality, shall stop at the station and be inspected, and obtain a certificate in accordance with Form No. 1.

2. No car or train of cars from an *infected* place will be permitted to enter the limits of this State. In the case of passenger trains, there must be an entire transfer of passengers and baggage, and in case of freight trains an entire change of freight at the station, to other cars. The conductor of such train after the transfer, will be provided with a certificate in accordance with Form No. 1.

3. If the conductor of any train produces a satisfactory certificate that such a transfer has been made before reaching the limits of this State, unless otherwise ordered by this Board, another transfer will not be required. The officer at the station will indorse the conductor's certificate.

4. Trains passing through an *infected* place at a rate of speed of ten miles an hour, and not stopping within two miles of such place, that hold the certificate of a Health Officer, recognized by this Board, that it has not so stopped, and that no person or article from such place or that has been exposed to infection has been taken on board, will not be required to make the transfer mentioned in Rule No. 2, and the officer in charge of the station will indorse said certificate.

5. In case of suspected infection of a passenger car, or a sleeping car, such car, including all the upholstery, cushions, curtains, mattresses, etc., shall be thoroughly disinfected, under the supervision of an officer of this Board, and shall be exposed to the open air for at least fifteen days before it will be permitted to enter the State. In case of suspected infection of a box or flat car, such car shall be disinfected and exposed to the open air for at least five days before it will be permitted to enter this State. Any car, however, will be permitted to return instead of undergoing detention.

6. No passenger or other person coming from the direction of an *infected* locality or the direction of the railroad connection with such locality, destined for a point in this State, will be permitted to enter this State unless they produce satisfactory written evidence that they are not from an infected locality, or until they have undergone a detention of fifteen days;

and no railroad employe coming from such direction will be permitted to enter this State unless they produce satisfactory evidence that they are not from an infected locality or until they have undergone a detention of fifteen days ; such persons, however, that prefer to return instead of undergoing such detention, will be permitted to do so.

Persons holding such written evidence as above mentioned, shall have such evidence indorsed by the officer in charge of the station.

7. No person from an *infected* locality and no person that has been exposed to infection, destined for a point in this State, shall enter this State until fifteen days have elapsed since their departure from such locality, or their exposure to infection ; and they and their baggage have been disinfected. They shall either be detained at the station or permitted to return if they prefer to do so. Persons who have undergone such detention will be provided with a certificate in accordance with Form No. 2.

8. Persons from an *infected* locality, or that have been exposed to infection, holding a certificate from a health officer recognized by this Board, that a certain time has elapsed since they left such locality, or were exposed to infection, will have such time credited to them,

9. Persons from an *infected* locality, or that have been exposed to infection, producing satisfactory evidence that they are protected by a previous attack of disease, shall be detained a sufficient length of time to have their clothing and baggage disinfected, and shall obtain a certificate from the officer in charge of the station in accordance with Form No. 2.

10. No person sick with yellow fever, or a fever suspicious in its character, shall enter this State, but will either be placed under observation at the station and detained for such a time after recovery as may be regarded necessary, or permitted to return, if he or she prefers to do so.

11. Persons from an *infected* locality, after complying with these rules and regulations, will be permitted to bring into this State as baggage only wearing apparel.

12. No freight from a dangerously infected place, and no freight that has been exposed to infection will be permitted to be brought to any place in this State.

13. No mail matter from a *dangerously infected* locality, except first class matter and newspapers, will be permitted to enter this State, and that must be thoroughly disinfected.

14. No steamboat or other water craft coming from the direction of an *infected* place that does not stop at the quarantine station and be inspected and obtain a certificate in accordance with Form No. 3, shall land at or communicate with any point in this State.

15. No steamboat or other water craft from or touching with-

in two miles of a *dangerously infected* place shall land at or communicate with any place in this State.

16. No infected steamboat or other water craft shall land at or communicate with any place in this State. In case she has on board a person sick with yellow fever, or a fever suspicious in its character, destined for a place in this State, such person may if they choose be removed to the quarantine station for treatment.

17. No person, train of cars or steamboat, or other water craft, holding a certificate in accordance with the provisions of these rules, shall be interfered with by any local system of quarantine.

18. Any person violating these rules and regulations shall on conviction, be punished by a fine of not more than five hundred dollars, or imprisonment for not more than six months in the county jail: and every person or thing shall be forcibly detained to compel observance of them; and anything seized under these rules shall if necessary be sold to cover the expense of dealing with it.

RULES AND REGULATIONS

TO BE ENFORCED AND OBSERVED IN AND AROUND A LOCALITY
IN THIS STATE THAT BECOMES INFECTED.

1. When a place becomes *infected*, and before it is declared *dangerously infected*, all persons liable to the disease should remove to a place of safety as early as possible.

2. Persons leaving such a place before it is declared *dangerously infected* will be permitted to go with their baggage without hindrance, unless they or their baggage have been exposed to infection, in which case, they or their baggage will be required to conform to the rules relating to *dangerously infected* localities.

3. Every person leaving such an *infected* place should procure a certificate in accordance with the first certificate in Form No. 4, from an officer of this Board, or if there is no such officer, from the local health authorities. When a place has been declared *dangerously infected*, every person leaving by railroad will be required to have both certificates in Form No. 4.

4. Physicians shall promptly report to the local health au-

thorities any case of yellow fever, or any case suspicious in its character that may occur in their practice, and the householder in whose house the case occurs shall also make the report.

5. The case or cases of yellow fever, or suspicious in their character, shall be isolated as far as practicable; the house or houses in which they are shall be quarantined, and no person except the physician, nurses and clergyman will be permitted access without the written permission of the health authorities in charge. The persons mentioned, and the occupants of the house, will not be permitted to leave the premises until their clothing has been disinfected or changed in a pure atmosphere.

6. No person sick with the disease shall be moved except by the written permission of the health authorities in charge.

7. When a place is declared by the State Board of Health to be *dangerously infected*, no person, who is not protected by a previous attack of the disease will be permitted to go elsewhere until they shall have been under observation, in a non-infected atmosphere, for fifteen days, without developing any symptoms of the disease, and whose clothing and baggage have been disinfected before leaving such place, and again at the place of observation. They will be permitted to take with them as baggage only wearing apparel.

8. Persons who are protected by a previous attack of the disease will be permitted to leave a *dangerously infected* place at any time, but must have their clothing and baggage disinfected before leaving such place and again at the transfer or inspecting station. They will be permitted to take with them as baggage only wearing apparel.

9. No person who is not protected by a previous attack of the disease will be permitted to enter a *dangerously infected* locality, except by the written permission of the health officer in charge.

10. No freight shall leave a *dangerously infected* place, and no freight that has been exposed to infection, shall leave an *infected* place.

11. No mail matter, except first-class and newspapers, will be permitted to leave a *dangerously infected* place, and that must be thoroughly disinfected at the transfer or inspecting station.

12. Every train leaving an *infected* place shall be inspected by an officer of this Board, or, if there is no such officer, by the local health authorities, who shall give to the conductor of said train a certificate in accordance with the first certificate in Form No. 5. When a place is declared *dangerously infected*, both certificates in Form No. 5, will be required.

13. All cars leaving an *infected* place shall be thoroughly cleansed and fumigated with sulphurous acid gas, by burning

18 ounces of sulphur for every 1,000 cubic feet of space. If the place is declared *dangerously infected*, the car must be fumigated and kept tightly closed for six hours prior to leaving.

14. No upholstered car shall be allowed to leave a *dangerously infected* place.

15. At a point not less than five (5) miles and as near that point as possible from a *dangerously infected* place, there shall be an entire transfer of passengers, baggage and mails to other cars, which cars shall never enter a *dangerously infected* district.

16. This transfer shall be made in the open air, under the supervision of an officer of this Board, and as far from a habitation as possible; and no person who has not complied with the rules of this Board, will be allowed to proceed, but shall either return to the place of departure, or be placed under observation.

17. The officer of this Board, at the transfer station, shall carefully examine the conductor's certificate, and the certificate of each passenger, and fill the blanks appended, to accord with the results of his examination.

18. In case of suspected infection of a passenger car or sleeping car, such car, including all the upholstery, cushions, etc., shall be thoroughly disinfected under the supervision of an officer of this Board, and shall be exposed to the open air for at least fifteen days before being again used. In case of suspected infection of a box or flat car, it shall be thoroughly disinfected and exposed to the open air for at least five days before being again used.

19. If yellow fever *infect* a place situated upon a line of railroad, trains of all kinds will be permitted to pass through without stopping, and at a speed of not less than ten miles an hour, provided the State Board of Health has not issued a special rule prohibiting it. They shall stop no nearer such place than the inspecting stations of this Board, which shall be established at a safe distance, and will there be permitted to take on board only such passengers, baggage and mail matter that have complied with these rules.

20. Each train so stopping shall obtain a certificate in accordance with Form No. 6, from an officer of this Board, or, if there is no such officer, from the local health authorities; and all persons taken on board shall first obtain a certificate in accordance with the first certificate in Form No. 4.

21. No train or person holding a certificate, as is provided in these rules, shall be interfered with by any local system of quarantine.

22. No steamboat, or other watercraft, shall leave an *infected* locality without being inspected by an officer of this Board, or

if there is no such officer, by the local health authorities, and obtaining a certificate in accordance with Form No. 3.

23. Every steamboat, or other watercraft, leaving a *dangerously infected* locality, in addition to the requirements in Rule 22, shall at once report to the nearest inspecting station, and be cleansed and disinfected and detained for at least fifteen days, or longer if deemed necessary, before she will be permitted to proceed.

24. No steamboat, or other watercraft, shall land at an *infected* place, but will be permitted to land at a point not nearer than two miles of such place, and there be permitted to discharge cargo and take on board only such persons, baggage and mail matter as have complied with the rules of this Board.

25. Steamboats or other watercraft so landing, shall be inspected by an officer of this Board, or, if there is no such officer, by the local health authorities, and obtain a certificate in accordance with Form No. 7.

26. When a steamboat, or other watercraft, is known or suspected to be infected, she shall proceed to the nearest inspecting station of this Board, or to some isolated location, there to be cleansed and disinfected under the direction of an officer of this Board, and detained for such a time as may be regarded necessary before she shall again be used.

27. In the event an infected steamboat or other watercraft, or one suspected of being infected, prefers not to undergo the detention prescribed in Rule 26, she will be permitted to proceed, but, if actually infected, shall not again land at, or communicate with a place in this State during the season.

28. No steamboat, or other watercraft, holding a certificate in accordance with these Rules, shall be interfered with by any local system of quarantine.

29. Any person leaving an *infected*, or *dangerously infected* place, by any other mode of travel than those provided in these rules and regulations, shall obtain a certificate in accordance with the first certificate in Form No. 4.

30. It shall be the duty of quarantine officers to take the responsibility of applying such additional measures as may be deemed indispensable for the protection of the public health. In case such additional measures are applied the fact shall be reported to the State Board of Health at once, giving, at the same time, the reasons therefor.

31. Any person violating these rules and regulations, shall, on conviction, be punished by a fine of not more than five hundred dollars, or imprisonment for not more than six months in the county jail; and every person or thing shall be forcibly detained to compel observance of them; and anything seized under these rules, shall, if necessary, be sold to cover the expenses of dealing with it.

FORM No. 1.

I hereby certify that train No., ... Conductor, from
....., has complied with all the rules and regulations of the
Mississippi State Board of Health, relating to trains entering
this State.

Station on R. R., near

Date, ...

....., Officer.

FORM NO. 2.

I hereby certify that, from, going to,
has complied with all the rules and regulations of the Missis-
sippi State Board of Health, relating to persons entering
this State.

Station, on (Railroad or river.)

Date, ...

....., Officer.

FORM No. 3.

I hereby certify that I have this day inspected steamboat (or
other watercraft), whereof is Master, bound
from to, trip No., and find that the sani-
itary condition of the boat is good, that she has on board no
person, baggage, mail matter, or freight in violation of the
rules of this Board; that she has on board cabin passen-
gers; deck passengers; officers; men and crew,
all of whom have been inspected, and certificates of health
issued to each, and all of whom are now free from fever.

Town or place

Date

....., Officer.

FORM No. 4.

1.

I hereby certify that has complied with all the
rules and regulations of the Mississippi State Board of Health,
relating to the departure of passengers from towns and places
infected with yellow fever, and that he (or she) is not now
affected with fever.

Name of place, ...

Date, ...

....., Officer.

2.

I hereby certify that, above referred to, has com-
plied with all the rules and regulations of the Mississippi State
Board of Health, relating to transfer of passengers leaving
places infected with yellow fever.

Transfer Station, ...

Date, ...

..... Officer.

FORM No. 5.

1.

I hereby certify that train No., which left, ... Conductor, has complied with all the rules and regulations of the Mississippi State Board of Health, relating to railroad trains leaving places infected with yellow fever.

Name of place, ...

Date, ...

....., Officer.

2.

I hereby certify that train No., above referred to, has transferred its passengers and baggage, or freight, at this transfer station, to other cars, and in all other respects complied with the rules and regulations of the Mississippi State Board of Health, and that it has no case of fever on board, and is, therefore, permitted to proceed without further detention.

Transfer Station on R. R., near

Date, ...

....., Officer.

FORM No. 6.

I hereby certify that train No., ... Conductor, has not stopped within two miles of, and that no person, baggage, mail matter, or freight, has been taken on board in violation of the rules and regulations of the Mississippi State Board of Health.

Station on R. R., near

Date, ...

....., Officer.

FORM No. 7.

I hereby certify that steamboat (or other watercraft), whereof, ... is Master, has not landed within two miles of, that no person or thing has been taken on board in violation of the rules and regulations of the Mississippi State Board of Health.

Station on river, near

Date, ...

....., Officer.

RESTRICTION AND PREVENTION OF SCARLET FEVER.

[DOCUMENT ISSUED BY THE MISSISSIPPI STATE BOARD OF HEALTH.]

SCARLET FEVER IS NOW BELIEVED TO BE ONE OF THE MOST CONTAGIOUS DISEASES. One attack usually prevents subsequent attacks. The greatest number of deaths from this disease are of children under ten years of age. Adult persons do sometimes have the disease. Scarlet Fever is believed to arise from a special contagium or poison which may be conveyed, to persons previously unaffected; by personal contact, by infected clothing or paper rags, or by any of the discharges from the body of a person affected with the disease.

THE DISCHARGES from the throat, nose and mouth are considered extremely dangerous, but those from the skin, eyes, ears, kidneys and bowels, are also dangerous, and remain so for a considerable time.

FILTH, all forms of uncleanness, and neglect of ventilation increase the danger of spreading the disease.

COMMUNICATION.—It is believed that the disease may be communicated by a person recovering therefrom so long as the usual subsequent scaling or peeling of the skin continues, which sometimes is not completed before the lapse of seventy or eighty days, although usually completed sooner.

THE INTERVAL OF TIME which may elapse after exposure to the contagium of Scarlet Fever, and during which a susceptible person so exposed may expect to be taken sick with the disease, varies from one to fourteen days.

SEPARATION OF THE SICK FROM THE WELL. Whenever a child has sore throat and fever, and especially when this is accompanied by a rash on the body, the child should be immediately isolated as completely as possible from other members of the household, and from other persons, until a physician has seen

it and determined whether it has Scarlet Fever. *All person-known to be sick with this disease should be promptly and thoroughly isolated from the public.*

THE ROOM INTO WHICH ONE SICK WITH THIS DISEASE IS PLACED should previously be cleared of all needless clothing, carpets, drapery, and other materials likely to harbor the poison of the disease; except such articles as are essential to the well-being of the patient. The sick room may have no carpet, or only pieces which can afterwards be destroyed. Provision should be made for the introduction of a liberal supply of fresh air and the continual change of the air of the room without sensible currents or drafts.

POCKET HANDKERCHIEFS, that need to be saved, should not be used by the patient; small pieces of rag should be substituted therefor, and after being once used should be immediately burned.

SOILED BED AND BODY LINEN should be placed in vessels of water containing chlorinated soda, chlorinated lime, or other disinfectant before removal from the sick room.

For this purpose chlorinated soda is the neatest, and most convenient because it can be used with soap, but it is apt to lose its disinfecting properties by age. Chlorinated lime if used too freely may destroy articles of clothing with which it comes in contact, but if properly used it is the safest as a disinfectant.

THE DISCHARGES FROM THE PATIENT should all be received into vessels containing chlorinated lime (commonly called "chloride of lime,") sulphate of iron, or some other known disinfectant,* and the same buried at once, and not by any means be thrown into a running stream, nor into a cess-pool, or water closet, except after having been thoroughly disinfected. All vessels should be kept scrupulously clean and disinfected.

PERFECT CLEANLINESS of nurses and attendants should be enjoined and secured. As the hands of nurses of necessity become frequently contaminated by the poison of the disease, a good supply of towels and two basins—one containing solution of chlorinated soda (Labarraque's solution) chlorinated lime or other disinfecting solution, and another for plain soap and water, should be always at hand and freely used.

PERSONS WHO ARE ATTENDING upon children or other persons suffering from scarlet fever, and also the members of the patient's family, should not mingle with other people nor permit the entrance of children into their house.

FUNERALS of those dying from scarlet fever should be strictly private and the corpse not exposed to view. To avoid mistakes, notices of such deaths in the papers should state that the deceased died of scarlet fever.

ALL PERSONS RECOVERING FROM SCARLET FEVER SHOULD BE CONSIDERED DANGEROUS, and therefore *should not attend school, church, or any public assembly, or use any public conveyance, so*

* Carbohic acid in dilute form as generally used is not believed to be a disinfectant.

long as any scaling or peeling of the skin, soreness of the eyes or air passages, or symptoms of dropsy remain. No person recovering from scarlet fever should thus endanger the public health nor appear in public until after having taken four times, at intervals of two days, a thorough bath. This cleaning, however, should be deferred until the physician in charge considers it prudent. After recovery from scarlet fever, no person should appear in public wearing the same clothing worn while sick with or recovering from this disease, except such clothing has been thoroughly disinfected by some such method as herein specified.

GASEOUS DISINFECTION, OR FUMIGATION, can only be completely and entirely effectual in the absence of living persons, as fumes strong enough for the purpose are destructive of human life. This need not deter from doing so much as is possible, without injury to sick persons, for the purification of the air of rooms occupied by them, —a liberal supply of pure air should be secured; but after the sick have recovered, the room, furniture, and other contents not to be destroyed, should be thoroughly exposed for several hours to strong fumes of chlorine gas, or to fumigation by burning sulphur; or the paper on the walls, if any, removed and burnt, the furniture scrubbed or polished, and the room thoroughly scrubbed and whitewashed.

WHEN A ROOM AND CONTENTS ARE TO BE DISINFECTED, all articles therein should be spread out so as to expose the greatest amount of surface to the action of the disinfectant, and all openings to the room should be closed.

TO GENERATE CHLORINE, take peroxide of manganese (to be obtained at any drug store,) place in an earthen dish and add one pound of hydrochloric acid (sometimes called muriatic acid,) to each four ounces of the peroxide of manganese. Care should be taken not to inhale the gas. After being certain that continuous evolution of chlorine has been secured, leave the room and close the door of exit.

The bleaching properties of chlorine may destroy the color of colored goods exposed to it, but as a disinfectant it is one of the best.

TO GENERATE SULPHUROUS ACID GAS, put live coals on top of ashes in a metallic pan, and place on the coals sulphur in powder or fragments.

A convenient way is to place the coals and sulphur on a heated stove plate or cover turned bottom upward in a pan half filled with ashes. To disinfect 100 cubic feet of air requires the thorough combustion of about one and one-half ounces of sulphur.

ROOMS SHOULD BE KEPT CLOSED AND SUBJECTED TO THE ACTION OF THE DISINFECTING GAS FOR SIX OR EIGHT HOURS, and afterwards thoroughly aired by opening doors and windows.

HEAT AS A DISINFECTANT.—It is believed that heat sufficient to be disinfectant for this disease may be secured without destroying ordinary articles of clothing, say at 240° to 250° F.

WHENEVER A CASE OF THIS DISEASE OCCURS in a locality, prompt and vigorous action should be taken for the restriction of the disease, by early isolation of those sick with the disease, and by the destruction or disinfection of all articles likely to be infected.

PLAIN AND DISTINCT NOTICES SHOULD BE PLACED UPON THE PREMISES OR HOUSE in which there is a person sick with scarlet fever, and *no child that has not had the disease should be allowed to enter* or to associate with persons who do enter such house or room.

ALL CLOTHING, CARPETS, CURTAINS, FURNITURE, and other substances that are to be destroyed should be dealt with in a way to avoid conveying the poison to any person in the process; they should not be simply thrown away, or into some stream or body of water; and if burned should be completely burned and not simply heated or dealt with in a way to diffuse the poison of the disease.

ALL SUCH INFECTED SUBSTANCES, which are not destroyed, should be thoroughly boiled, subjected to a dry heat of 250° F. in a closed room or disinfecting oven, or be thoroughly exposed to fumes of chlorine or of burning sulphur. Books and furs that have been used or handled by those convalescing from this disease are particularly liable to convey the poison to children who have never had the disease. Great care should be used to thoroughly disinfect any such articles that are not destroyed; and caution should be exercised before allowing children who have had scarlet fever to handle any such articles that have been used by persons liable to communicate the disease.

FRESH AIR.—Although not so active for the destruction of the contagium as is chlorine or sulphurous acid gas, pure air, in liberal amount, is a very useful and important agent for the dilution and destruction of the poison of the disease; it should be employed freely; but with this as with other procedures for the safety of the unaffected, great care should be taken not to increase the danger to those already sick from any cause, who are usually endangered by exposure to drafts of cold air, and this is especially true of persons convalescing from scarlet fever.

DIPHTHERIA.

Diphtheria is a contagious and infectious disease of great severity and frequent fatality.

ITS RELATION TO FILTH AS A CAUSE.

Diphtheria occurs most frequently, and in its most fatal forms in localities which are filthy. It does not matter whether the filth exists in visible and disgusting forms, such as the garbage heap, the cess-pool or the privy vault, or in the invisible and possibly inodorous gasses from an illy-constructed sewer, from decaying vegetables in the cellar, or in the poisonous exhalations from the human breath and body in unventilated rooms. Its effects are to lower the vitality of the system, make it less able to resist the attacks of disease of any kind, and fit it for the development of the worst form of any prevailing epidemic.

From any form of filth, either upon your own or your neighbor's premises, poisonous vapors may fill the house, to be inhaled with every breath; or the leachings of filth may penetrate through many feet of soil and pollute the water supply, which to casual inspection appears pure. Diphtheria has so often appeared where such uncleanly conditions have prevailed, when it could not be traced to continuous propagation by infection or contagion, that its relation to filth as a cause is well established, and it is rightly characterized as pre-eminently a filth disease.

ITS CONTAGIOUS AND INFECTIOUS CHARACTER.

Whatever may be its origin, Diphtheria is unquestionably contagious and infectious, and may be communicated from one sick with the disease to another by the breath, through the air which surrounds him or by the secretions or discharges from his person.

It may also, but with less certainty, be carried from one place to another and communicated by means of clothing, food and other articles, which have been contaminated in the sick-room.

As a rule, the danger of exposure to the disease is in pro

portion to the malignancy of the case, but to this there are many exceptions, and exposure to the mildest case may be followed by the severest form of the disorder. Children are most susceptible to the disease, and may contract it in its worst type from the kiss of an adult who has what appears to be but a trivial "sore throat."

The time that elapses between exposure to and the subsequent development of Diphtheria in the person exposed, bears some relation to the malignancy of the disease and its prevalence as an epidemic at the time. Usually it appears within the first week, but in exceptional cases its appearance may be delayed to a much later period.

SPECIAL MANAGEMENT OF CASES.

It is of the first importance that an outbreak of the disease should be the signal for the immediate observance of those precautions which are known to be most effectual in the restriction of any contagious disease, and in this respect the treatment should be as vigorous as in a case of small-pox or scarlet fever, the one rule of most imperative necessity being the isolation of the patient.

Immediately upon the appearance of the disease, the patient should be removed to a room as remote as possible from family occupancy. This room should be prepared for his reception by removing from it all superfluous furniture, especially such as woollen carpets, extra clothing, books, and all window curtains, table spreads and other similar articles which cannot be subsequently cleansed by boiling.

The room should be large and sunny, and it is better if it be in the upper part of the house. Particular care should be taken to have it ventilated as thoroughly as possible, while the patient is protected from any direct draughts, in order to *dilute the poisoned atmosphere* to the utmost extent. This will be facilitated and the care of the patient rendered easier, if it be practicable to place the bed so as to make it accessible from all sides.

No one should be admitted to the sick room except the necessary attendants, whose garments should be made of such material as will admit of being cleansed by boiling.

No food which has been in the sick room should be partaken of by the well; even the dishes which have contained such food should be cleansed by themselves.

Under no circumstances should the patient's soiled bed or body linen be mixed with other soiled clothing, or be admitted to the general wash; it should be at once cleansed by *boiling* water.

For the cleansing of the mouth and nose from the discharges which are sometimes copious and always dangerous, bits of linen or cotton cloth, or pieces of soft paper should be used and immediately burned.

Discharges from the bowels and bladder, which are also sources of danger, should be received in vessels containing disinfecting fluids, and as soon as possible removed from the room and buried. If received on cloths, these should be burned.

For the purposes just mentioned, copperas, otherwise known as sulphate of iron or green vitriol, forms a cheap, convenient and efficient disinfectant. It is prepared for use by dissolving two pounds of copperas in a gallon of hot water. In malignant cases, it is recommended that an ounce of crude carbolic acid be added to each quart of this solution. These materials also form a good disinfectant for privies, drains and other foul places, and may be prepared for this purpose by adding eight pounds of copperas and one pint of crude carbolic acid to five gallons of hot water. From a pint to a quart of this solution used twice a day will suffice to keep down foul odors ; a much larger quantity, however, is needed for the first application.

Another disinfectant, recommended by the New York Board of Health, which may be freely used in the sick chamber, and which is especially adapted for the reception of soiled clothing until it can be further cleansed by boiling, is composed of sulphate of zinc (or white vitriol) eight ounces, carbolic acid one ounce, and water three gallons.

Still another convenient and efficient disinfectant is the solution of chlorinated soda known as Labarraque's Disinfecting solution, which diluted with from eight to twelve parts of water, may be used for cleansing utensils, washing the hands of attendants, etc.

THE RECOVERY

of the sick person should be complete and the cleansing of the person thorough before he again mingles with the well, and, during the presence of diphtheria in any family, all members of that family should be excluded from the public schools and refrain from attendance upon public assemblies or unnecessary intercourse with others ; and this isolation and practical quarantine should continue until, in the judgment of some competent physician, it is safe to remit the precaution.

IN CASE OF DEATH

The funeral should be conducted with little publicity and without exposure of the body, which should early be placed in a tight coffin with some of the disinfectants above mentioned. In no case should children be permitted to attend such funerals. The neglect of these precautions is known to have been the cause of the death of many persons, in this State and elsewhere.

SUBSEQUENT CARE OF THE PREMISES.

Rooms from which patients who have had diphtheria have

been removed should be thoroughly disinfected by fumigation, and if there has been any special malignancy of the disease all paper hanging should be removed from walls covered there with; all other walls and all ceilings should be freshly white-washed, and the wood-work and floors be thoroughly scrubbed.

Sulphurous acid gas, or the fumes of burning sulphur, is an efficient, convenient and inexpensive disinfectant. Two pounds of sulphur will suffice for a room twelve feet square; and ten feet high. It needs but to be burned in the room by putting it, in powder or small fragments, on live coals, in a safe vessel; all doors, windows, and other apertures should be tightly closed during the burning of the sulphur, and for several hours afterward, and the room should then receive free and prolonged ventilation.

GENERAL PREVENTIVE MEASURES.

Finally, while isolation and disinfection should be thorough and persistent in the presence and for the restriction of diphtheria or other dangerous and contagious disease, it should be remembered that no care to isolate patients or to disinfect premises already contaminated can atone for the neglect of those precautions which all experience has demonstrated to be capable of mitigating the violence of, if not wholly preventing contagious disease of every kind.

Cleanliness and purity of air are the deadly foes of all contagion. Pure air, pure water and pure soil are essential conditions of healthful life, and the surest safeguards against disease.

Secure dryness for every part of your dwelling by thorough drainage; secure cleanliness for every part of your premises by careful removal of all decomposing animal or vegetable matter, by allowing no garbage heap or cess-pool to remain near the house, and by frequently cleansing and disinfecting the privy, the contents of which may at all times be kept entirely inoffensive by the plentiful use of dry earth or coal ashes. Examine and correct any defects of sewerage. In short, let there be nothing left to pollute the atmosphere or poison the water supply. Let the sun and air have free access to the house, and especially to the sleeping rooms. Secure proper and well-prepared food, and comfortable clothing, and "the pestilence that walketh in darkness" and revels in filth will pass you by seeking a more congenial soil.

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On page 15, read April 6, instead of October 6, as the date of meeting.

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